



Report

on the Health of the


City of Liverpool

for

1970

by the

MEDICAL OFFICER OF HEALTH



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City of Liverpool

for the year

1970

by

ANDREW B. SEMPLE, C.B.E., V.R.D., M.D., D.P.H.,
Medical Officer of Health

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Deputy Chairman

Councillor Lennie Sanders

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Ian Levin
R Rattray
F Woolfenden

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W F Burke
E M Clein
E Crierie
P J Dunne
W Gilbody
G G Maloney
J McDermott
G K McKelvie
Thelma Norton
M Josephine Powell
A McKie Reid, MC TD
W T Savage
R Stoddart
C Taylor

Personal Health & Social Services Committee 1969/70

(first meeting 18th December 1969)

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Deputy Chairman

Councillor Lennie Sanders

Aldermen

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Ian Levin
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Dr M Solomon

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(November 1970, onwards)

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Dr W P Wilson
Dr M Solomon

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(January 1971)

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(January 1971)

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W F Burke
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Council

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H Dalton
J Sidwell
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D E Williams

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Alderman R F Craine

Deputy Chairman

Councillor J E Kendrick

Aldermen

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L H Sanders

W Thomas

D E Williams

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I P Balmer

J G Barrett

S B Caulfield

H Dalton

A Dunford

J F Jones

W Owens

E D Roderick

R G Semple

J K Tanner

Senior Staff

HEALTH DEPARTMENT

Medical Officer of Health	Professor Andrew B Semple, CBE, VRD, MD, DPH
Principal Medical Officer (Epidemiology) (A/Deputy in absence of MOH)	R S E Cutliffe, MRCS, LRCP, DPH
Principal Medical Officer (Medical Examinations)	J K Howard, MB, ChB, BD
Principal Assistant (Administration)	A C James, Dipl PA

PERSONAL HEALTH SERVICES DEPARTMENT

Director	Miss Esther M E Ramsay, MB, CHB, DPH
Chief Ambulance Officer	A Guinney
Principal Nursing Officers	Miss A Watson B H Dickinson Miss I Ferguson

SOCIAL SERVICES DEPARTMENT

Director	Brian Meridith Davies, MD DPH
Home Help Organiser	Miss H E Jones, MBE

ENVIRONMENTAL HEALTH & PROTECTIVE SERVICES DEPARTMENT

Director	Miss Audrey Lees, BArch, ARIBA, DiplTP, MTPI
Chief Public Health Inspector	W H Wattleworth
Chief Disinfecting Inspector	R C Symes

Preface

I have the honour to present my 19th Annual Report as Medical Officer of Health of the City of Liverpool and the 123rd report in the series.

You will observe that the Annual Report is in a different form this year. This is due to the fact that I am no longer directly responsible for the management of most of the services which have to be mentioned in the statutory report. This means that the report is divided into three parts i.e.:

- Part A The Health Department for which I am fully responsible.
- Part B { The Personal Health Services Department under the direction of
 the Director of Personal Health Services (Dr E. M. Ramsay).
- Part B { The Social Services Department under the management direction
 of the Director of Social Services (Dr Brian Meredith Davies).
- Part C The Environmental Health and Protective Services Department
 under the management control of the Director (Miss Audrey Lees).

The two divisions contained in Part B although combined in 1970, have been separated in 1971. However, as a functional officer I am still responsible for all the health standards of the city, and for advising the Council on all public health and medical matters.

The lateness of this publication for last year stems from the staff having been curtailed to such a level that prolonged illness of two or indeed one member of the more experienced staff can produce marked strain amongst the rest of the staff and leads to delays.

During 1970 the birth rate in Liverpool again fell, the figure being 16.0 per 1,000 of the population as compared with 16.6 in 1969 and 17.2 in 1968. The birth rate has thus fallen to the average level of England and Wales, after having been above the average for many years. Further comment on this point is given in the text. The proportion of illegitimate births continued to be high (11.5% as compared with 11.4% in 1969).

The number of deaths decreased to 8,050 from 8,317 in 1969, giving a rate of 12.1 per 1,000 compared with 12.3 in 1969. There were 70 deaths from influenza, the highest number from this cause since 1961, but deaths from all respiratory conditions declined from 1,451 in 1969 to 1,352 in 1970. Lung cancer deaths increased from 546 in 1969 to 565 in 1970, but deaths from cancer, all forms, declined from 1,825 to 1,752. A new table of deaths from leukaemia is included in the body of the book.

I wish to record my thanks to the staff of the Health Department for their continued efforts and loyal support, and the three directors of the new departments for providing information for inclusion in this report in respect of the services for which I am no longer personally responsible. I am also grateful to the Chairmen and members of the Committees newly formed which now deal with the former Health Department services.

I am,

Your obedient servant,

Andrew B. Semple

Medical Officer of Health.

PART A – HEALTH DEPARTMENT

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Vital Statistics

	1968	1969	1970
Area (land and inland water)—acres	27,819	27,819	27,819
Population (Estimated by Registrar-General)	688,010	677,450	667,000
Deaths (all causes)	7,958	8,317	8,050
Death rate per 1,000 (unstandardised)	11.6	12.3	12.1
Live Births	11,847	11,268	10,673
Live Birth rate per 1,000 population	17.2	16.6	16.0
Percentage of illegitimate live births	11.1	11.4	11.5
Stillbirths	219	168	174
Stillbirth rate per 1,000 total (live and still) births	18.2	14.7	16.0
Total Births (live births and still births)	12,066	11,436	10,847
Infant Deaths (under one year)	262	227	225
Infant Mortality rate per 1,000 live births	22.1	20.1	21.1
„ „ „ 1,000 legitimate births	19.9	20.2	21.2
„ „ „ 1,000 illegitimate births	39.7	19.4	20.3
Neo-Natal Mortality rate (under 28 days) per 1,000 related live births	14.6	12.3	13.4
Early Neo-Natal Mortality rate (under one week) per 1,000 related live births	12.8	10.6	11.3
Perinatal Mortality rate (stillbirths and deaths under one week) per 1,000 total live and stillbirths	30.7	25.0	27.2
Maternal Deaths	1	4	3
Maternal Mortality rate per 1,000 total births	0.083	0.350	0.277
Deaths from:			
Pulmonary Tuberculosis	39	25	24
Death rate per 1,000 population (unstandardised)	0.057	0.037	0.036
Non-pulmonary Tuberculosis	5	3	7
Death rate per 1,000 population (unstandardised)	0.007	0.004	0.010
Respiratory Diseases	1,221	1,451	1,352
Death rate per 1,000 population (unstandardised)	1.8	2.1	2.0
Cancer (all forms)	1,772	1,825	1,752
Death rate per 1,000 population (unstandardised)	2.6	2.7	2.6

Births

During the year 10,673 live births were registered within the city, the birth rate being 16.0 per thousand of the estimated mid-year population. These figures compare with 11,268 and 16.6 respectively in 1969. The birth rate has thus fallen to the average level of England and Wales, after having been above the average for many years. It seems likely however, to judge from the provisional population figure (606,834) obtained in the 1971 census, that the 1970 population estimate for Liverpool is rather inflated. If this is so, the rates based on population given in this report will need to be raised accordingly. The number of illegitimate live births was 1,231 (11.5% of all births), as compared with 1,290 (11.4%) in 1969.

Stillbirths

The 174 stillbirths registered in the city during the year represent a stillbirth rate per thousand total live and stillbirths of 16.0. The stillbirth rate among illegitimate babies was 19.9 and among legitimate babies 15.5 per thousand.

Mortality

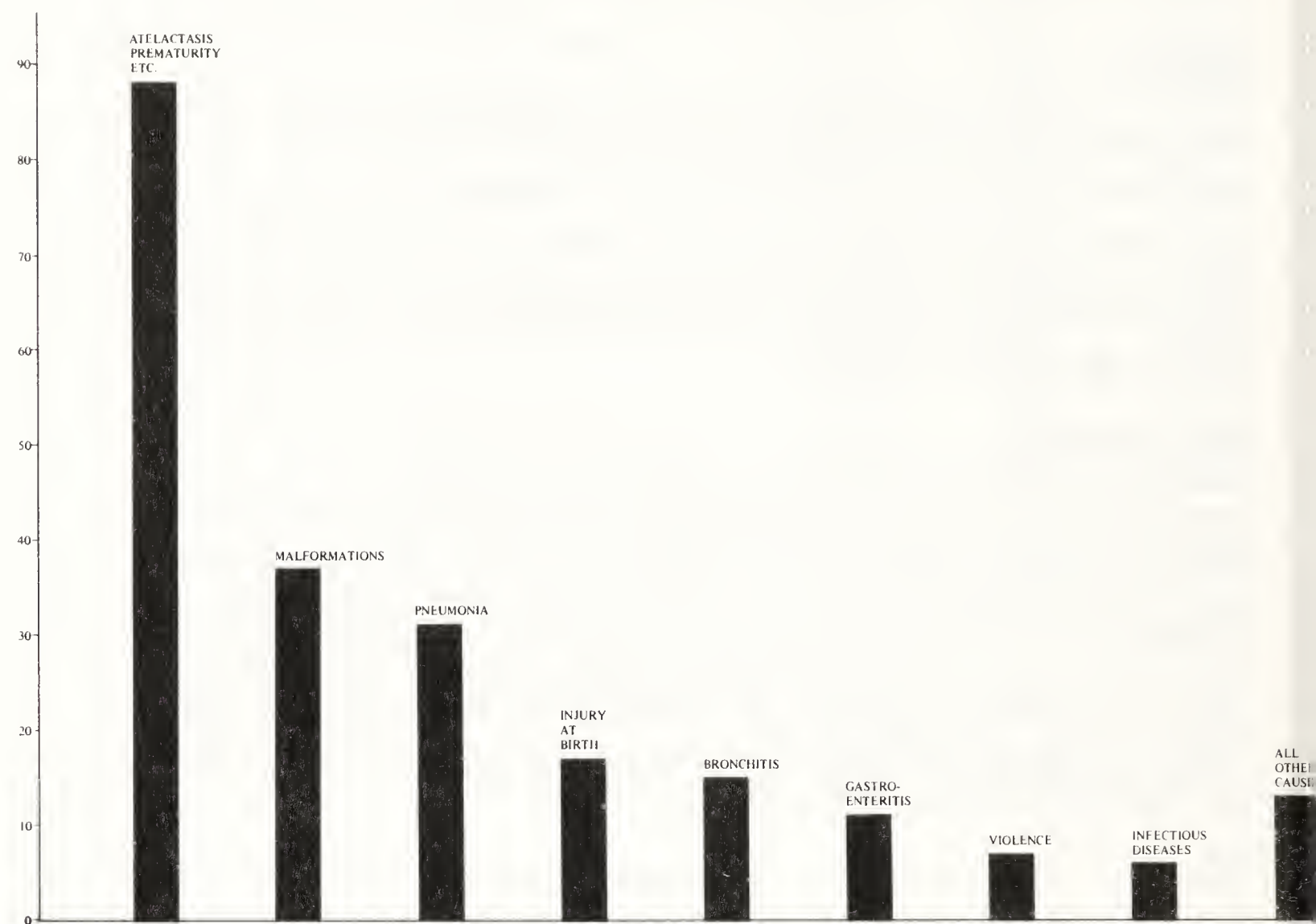
There were 8,050 deaths registered within the city during the year, 4,019 males and 4,031 females. The general death rate was 12.1 per thousand, as compared with 12.3 per thousand for the preceding year.

The number of deaths from cancer of the respiratory system was 565. Deaths from tuberculosis during the year were 31 as compared with 28 in the previous year. The trends of mortality of certain specified diseases are given in the tables in the statistical appendix.

Infant Mortality

The infant mortality rate during the year was 21.1 per thousand live births as compared with 20.1 for the previous year. A total number of 225 infant deaths occurred, of which 25 were illegitimate children. This represents a legitimate infant mortality rate of 21.2 per thousand and an illegitimate infant mortality rate of 20.3 per thousand. The neonatal mortality rate (under 28 days) was 13.4 as compared with 12.3 for the previous year, whilst the early neonatal mortality rate (under one week) was 11.3 as compared with 10.6 per thousand related live births. The principal causes of infant mortality are represented in the following diagram.

PRINCIPAL CAUSES OF INFANT MORTALITY – 1970
(Underlying Primary Cause)

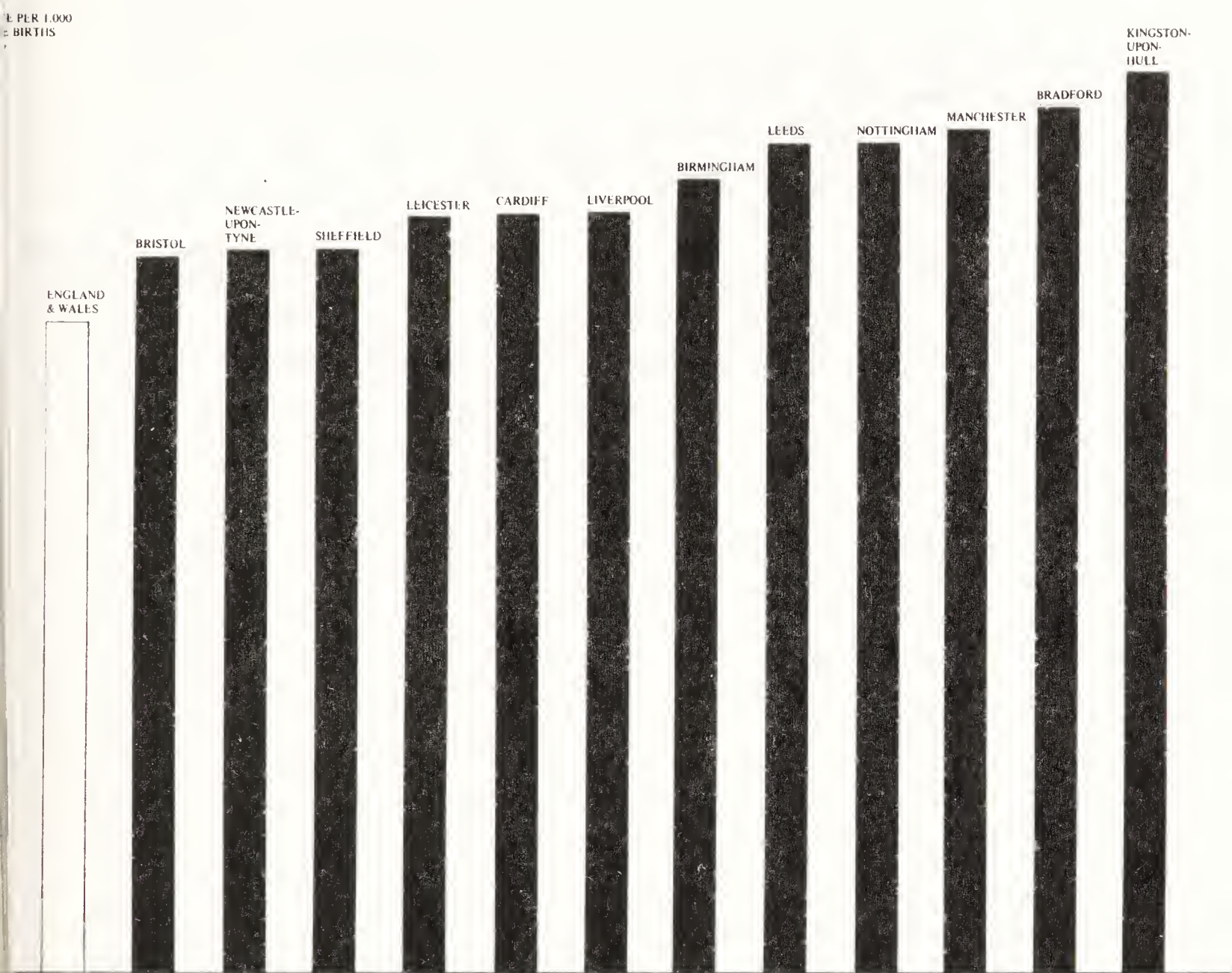


Code Numbers included in each category (List A)

Atelactasis, prematurity, etc.	133–5
Malformations	126–130
Pneumonia	91, 92
Injury at birth	131, 132
Bronchitis	89, 93
Gastroenteritis	5
Violence	138–150
Infectious disease	1–4, 6–44, 72
All other causes	remainder

These code numbers are from the eighth revision of the W.H.O. Manual, published 1967.

CHART SHOWING INFANT MORTALITY RATE FOR A NUMBER OF THE LARGER AUTHORITIES FOR THE YEAR 1970, COMPARED WITH ENGLAND AND WALES



Perinatal Mortality

This rate, which is the number of stillbirths and the number of deaths in infants under one week per thousand births, represents very fairly the hazards of childbirth. During 1970 the rate was 27.2 compared with 25.0 in 1969.

Child Mortality

The various causes of child mortality both in total and for specific diseases are given in the table illustrated below.

YEARLY MEAN NUMBER OF DEATHS IN SUCCESSIVE QUINQUENNIA, 1920-1969, AND TOTAL DEATHS IN THE YEAR 1970

Year	Deaths under 1 year	Deaths, 1 year and under 5 years of age							
		Total 1 year and under 5 years of age	Infectious Diseases (including T.B.)	Respiratory Diseases	Digestive Diseases	Measles	Whoop- ing Cough	Diph- theria	Scarlet Fever
						Included in Infectious Diseases			
1920-24	2,278	1,349	557	513	121	202	109	62	28
1925-29	1,879	1,252	564	461	121	227	118	61	23
1930-34	1,601	890	456	278	63	200	72	79	9
1935-39	1,283	487	243	147	30	79	46	58	3
1940-44	1,140	366	160	94	17	27	23	45	1
1945-49	1,100	168	67	36	13	8	15	9	—
1950-54	553	100	26	22	5	2	4	—	—
1955-59	432	57	7	12	5	1	—	—	—
1960-64	426	52	3	11	3	1	1	—	—
1965-69	280	40	2	7	1	1	—	—	—
1970	225	26	1	5	—	—	—	—	—

Deaths from Cancer

The total number of deaths from cancer during the year was 1,752 as compared with 1,826 in 1969. The number of deaths from cancer of the respiratory tract increased from 546 to 565.

Motor Vehicle Accidents

The number of deaths from motor vehicle accidents was 86, the same number as in 1969. The following figures relate to deaths of Liverpool residents only, including those killed whilst outside Liverpool. Non-Liverpool residents killed in Liverpool are excluded:

Year	Deaths from motor vehicle accidents	Deaths registered outside Liverpool (included in previous column)
1957	93	21
1958	78	13
1959	98	25
1960	119	22
1961	112	24
1962	81	12
1963	86	17
1964	105	21
1965	115	20
1966	115	25
1967	101	17
1968	85	16
1969	86	20
1970	86	18

An average of one-fifth of the total deaths relates to deaths of Liverpool residents occurring outside the City.

EPIDEMIOLOGY

The number of cases of notifiable infectious disease occurring in 1970 compared with 1966, 1967, 1968 and 1969 is shown in the table below:

	Notified Cases 1966	Notified Cases 1967	Notified Cases 1968	Notified Cases 1969	Notified Cases 1970
Scarlet Fever	808	536	185	329	436
Whooping Cough	944	494	609	209	734
Measles (excluding rubella)	5,094	5,771	4,444	1,112	7,110
Poliomyelitis	—	—	3	—	—
Tuberculosis, respiratory	235	234	219	186	169
Tuberculosis, non-respiratory	30	29	33	28	28
Diphtheria	—	—	—	—	—
Smallpox	—	—	—	—	—
Meningococcal Infection	7	3	3(A)		
Meningitis Acute	—	—	2(B)	4	5
Acute Encephalitis, post-infectious	1	1	—	—	—
Dysentery	372	425	341	386	84
Ophthalmia Neonatorum	62	70	70	64	80
Puerperal Pyrexia	230	287	269(A)		
Acute Pneumonia (primary or influenzal)	158	182	70(A)		
Paratyphoid Fever	5	1	1	1	1
Typhoid Fever	1	1	1	1	—
Food Poisoning	59	78	139	93	154
Erysipelas	26	20	13(A)		
Malaria (contracted abroad)	3	5	5	4	2
Anthrax	—	2	—	1	—
Infective Jaundice	—	—	439(C)	381	189

(A) Nine months' figures only (January–September). Ceased to be notifiable from 1st October 1968.

(B) Newly notifiable from 1st October 1968.

(C) Newly notifiable from 15th June 1968—Includes 242 voluntarily notified, (January–June), 197 statutorily notified (June–December).

Statistical Section

VITAL STATISTICS

BIRTH STATISTICS – 1947-1970

1970	Live Births			Stillbirths		
	Males	Females	Total	Males	Females	Total
Legitimate	4,841	4,601	9,442	71	78	149
Illegitimate	649	582	1,231	17	8	25
Total	5,490	5,183	10,673	88	86	174

Year	Live Births	Birth Rate	Registered Stillbirths	Total Births	Stillbirths per 1,000 Live and Stillbirths	Illegitimate Live Births	
						No.	% of Live Births
1947	19,904	26.4	514	20,418	25.2	1,151	5.8
1948	17,695	22.3	479	18,174	26.3	1,009	5.7
1949	16,551	20.7	358	16,909	21.2	943	5.7
1950	16,110	20.1	375	16,485	22.7	968	6.0
1951	15,593	19.9	396	15,989	24.8	859	5.5
1952	15,839	20.0	400	16,239	24.6	876	5.5
1953	16,022	20.3	394	16,416	24.0	873	5.4
1954	15,742	20.5	400	16,142	24.8	847	5.4
1955	15,268	19.6	408	15,676	26.0	785	5.1
1956	15,944	20.6	394	16,338	24.1	801	5.0
1957	16,044	20.9	409	16,453	24.9	854	5.3
1958	15,662	20.5	413	16,075	25.7	799	5.1
1959	15,615	20.6	375	15,990	23.4	815	5.2
1960	15,961	21.1	377	16,338	23.1	868	5.4
1961	16,492	22.1	380	16,872	22.5	946	5.7
1962	16,479	22.1	333	16,812	19.8	1,020	6.2
1963	15,775	21.3	351	16,126	21.8	1,095	6.9
1964	15,625	21.4	283	15,908	17.8	1,199	7.7
1965	14,553	20.2	269	14,822	18.1	1,197	8.2
1966	13,557	19.0	277	13,834	20.0	1,250	9.2
1967	12,583	17.8	223	12,806	17.4	1,296	10.3
1968	11,847	17.2	219	12,066	18.2	1,310	11.1
1969	11,268	16.6	168	11,436	14.7	1,290	11.4
1970	10,673	16.0	174	10,847	16.0	1,231	11.5

PERCENTAGE OF ILLEGITIMATE LIVE BIRTHS TO TOTAL LIVE BIRTHS

Comparison of Liverpool rates with rates for England and Wales

	Liverpool	England and Wales		Liverpool	England and Wales
1939	4.4	4.2	1955	5.1	4.7
1940	4.6	4.3	1956	5.0	4.8
1941	6.2	5.4	1957	5.3	4.8
1942	6.3	5.6	1958	5.1	4.9
1943	7.1	6.4	1959	5.2	5.1
1944	8.3	7.3	1960	5.4	5.4
1945	10.7	9.3	1961	5.7	6.0
1946	7.3	6.6	1962	6.2	6.6
1947	5.8	5.3	1963	6.9	6.9
1948	5.7	5.4	1964	7.7	7.2
1949	5.7	5.1	1965	8.2	7.7
1950	6.0	5.1	1966	9.2	7.9
1951	5.5	4.8	1967	10.3	8.4
1952	5.5	4.8	1968	11.1	8.5
1953	5.4	4.7	1969	11.4	8.4
1954	5.4	4.7	1970	11.5	8.3

DEATHS FROM PRINCIPAL CAUSES – 1970

Class	Cause Group No. (List A)*	Cause	Male	Female	Total	Rate per 1,000 Popula- tion	Percentage of Total Deaths
II	45-49, 52-61	Cancer (except respiratory system)	513	674	1,187	1.78	14.7
II	50, 51	Cancer (respiratory system)	452	113	565	0.85	7.0
VII	81,83,84	Heart Diseases	1,202	1,220	2,422	3.63	30.1
VII	85	Cerebrovascular Disease	334	535	869	1.30	10.8
VII	80, 82, 86-88	Other Circulatory Diseases	199	251	450	0.67	5.6
VIII	91, 92	Pneumonia	331	400	731	1.10	9.1
VIII	89, 93	Bronchitis	344	164	508	0.76	6.3
IX	97-104	Digestive Diseases	83	94	177	0.27	2.2
XIV & XV	126-135	Congenital Anomalies and Certain Causes of Perinatal Mortality	104	62	166	0.25	2.1
E XVII	138-150	Accidents, Poisonings and Violence	180	180	360	0.54	4.5
Various	Remainder	All other causes	277	338	615	0.92	7.6
Totals		All causes	4,019	4,031	8,050	12.1	100

*The code numbers in this and other mortality tables are from the 8th Revision, W.H.O. Manual, published 1967.

DEATHS FROM CANCER – 1970

Cause Group No. (List A)	Organs affected	Male	Female	Totals
45	Buccal cavity and pharynx	17	7	24
46-49	Oesophagus, stomach,intestines and rectum	212	228	440
50, 51	Larynx, trachea, bronchus and lungs	452	113	565
54	Breast	*2	152	154
55, 56	Cervix and uterus	—	45	45
52, 53, 57, 58	Other and unspecified sites	232	183	415
59	Leukaemia	24	22	46
60	Lymphatic and haematopoietic tissue	17	27	44
61	Benign and unspecified neoplasms	9	10	19
Totals		965	787	1,752

*Sex has been checked for these cases, and is correct.

TRENDS OF MORTALITY – 1948-70

	Deaths from Cancer of the Respiratory System	Deaths from Tuberculosis of the Respiratory System
1948	252	630
1949	320	532
1950	331	481
1951	334	406
1952	346	269
1953	432	258
1954	383	232
1955	408	185
1956	448	137
1957	448	123
1958	399	109
1959	444	102
1960	457	81
1961	525	80
1962	484	74
1963	483	54
1964	527	38
1965	493	42
1966	528	46
1967	503	44
1968	575	39
1969	546	24
1970	565	24

DEATHS FROM LEUKAEMIA – 1960-70 (I.C.D. Nos. 204–7)

Year	Male	Female	Total
1960	27	21	48
1961	22	16	38
1962	14	22	36
1963	25	16	41
1964	21	15	36
1965	26	15	41
1966	20	14	34
1967	14	16	30
1968	25	19	44
1969	23	15	38
1970	24	22	46

MATERNAL MORTALITY – 1930-1970

Year	Births Registered			Maternal Mortality	
	Live Births	Stillbirths	Total Births	Deaths	Rate per 1,000 Total Births
1930	18,881	774	19,655	75	3.81
1931	18,626	722	19,348	55	2.84
1932	18,149	827	18,976	51	2.69
1933	16,929	680	17,609	60	3.41
1934	17,593	685	18,278	51	2.79
1935	17,347	749	18,096	59	3.26
1936	17,403	708	18,111	64	3.52
1937	16,728	618	17,346	40	2.31
1938	16,175	639	16,814	33	1.96
1939	15,614	631	16,245	29	1.86
1940	15,016	519	15,535	31	2.01
1941	13,291	508	13,799	32	2.42
1942	13,729	552	14,281	34	2.38
1943	14,432	485	14,917	34	2.27
1944	15,412	492	15,904	31	1.95
1945	14,784	431	15,215	23	1.51
1946	18,528	539	19,067	19	0.99
1947	19,904	514	20,418	17	0.83
1948	17,695	479	18,174	14	0.77
1949	16,551	358	16,909	9	0.53
1950	16,110	375	16,485	7	0.42
1951	15,593	396	15,989	10	0.62
1952	15,839	400	16,289	7	0.43
1953	16,022	394	16,416	5	0.30
1954	15,742	400	16,142	8	0.49
1955	15,268	408	15,676	9	0.57
1956	15,944	394	16,338	7	0.43
1957	16,044	409	16,453	7	0.42
1958	15,662	413	16,075	4	0.25
1959	15,615	375	15,990	5	0.31
1960	15,961	377	16,338	5	0.31
1961	16,492	380	16,872	2	0.12
1962	16,479	333	16,812	5	0.30
1963	15,775	351	16,126	4	0.25
1964	15,625	283	15,908	3	0.19
1965	14,553	269	14,822	1	0.067
1966	13,557	277	13,834	—	—
1967	12,583	223	12,806	1	0.078
1968	11,847	219	12,066	1	0.083
1969	11,268	168	11,436	4	0.35
1970	10,673	174	10,847	3	0.28

INFANT MORTALITY – 1970

Deaths from stated causes at various ages under one year

Cause of Death	Cause Group No. List A	Under 1 week	7–27 days	1–6 months	7–11 months	Total Deaths under 1 year
Meningococcal Infection	19	—	—	—	—	—
Measles	25	—	—	—	—	—
Pneumonia	91, 92	2	4	22	3	31
Bronchitis	89, 93	—	—	15	—	15
Enteritis	5	—	4	6	1	11
Congenital Anomalies	126-130	17	7	11	2	37
Injury at Birth	131, 132	15	2	—	—	17
Other Diseases of Early Infancy	133-135	83	2	3	—	88
Other causes	—	4	3	17	2	26
Totals		121	22	74	8	225
Live Births in the year	Legitimate 9,442 Illegitimate 1,231			Deaths	Legitimate Infants 200 Illegitimate Infants 25	

CAUSES OF DEATH – 1970

This table relates to underlying primary causes of death, as in previous annual reports

Class	Male	Female	Total	Rate per 1,000 Population	Percentage of total deaths
I Infective and Parasitic Diseases	43	22	65	0.10	0.81
II Neoplasms	965	787	1,752	2.63	21.76
III Endocrine, Nutritional and Metabolic Diseases	27	54	81	0.12	1.01
IV Diseases of Blood and Blood-forming Organs	15	27	42	0.06	0.52
V Mental Disorders	23	16	39	0.06	0.48
VI Diseases of the Nervous System and Sense Organs	43	38	81	0.12	1.01
VII Diseases of the Circulatory System	1,735	2,006	3,741	5.61	46.47
VIII Diseases of the Respiratory System	728	624	1,352	2.03	16.80
IX Diseases of the Digestive System	83	94	177	0.27	2.20
X Diseases of the Genito-Urinary System	45	50	95	0.14	1.18
XI Complications of Pregnancy, Childbirth and the Puerperium	—	3	3	0.00	0.04
XII Diseases of the Skin and Subcutaneous Tissue	2	6	8	0.01	0.10
XIII Diseases of the Musculo-skeletal System and Connective Tissue	13	15	28	0.04	0.35
XIV Congenital Anomalies	38	23	61	0.09	0.76
XV Certain Causes of Perinatal Mortality	66	39	105	0.16	1.30
XVI Symptoms and Ill-defined Conditions	13	47	60	0.09	0.75
E XVII Accidents, Poisonings and Violence (External Cause)	180	180	360	0.54	4.47
Totals	4,019	4,031	8,050	12.1	100

ANALYSIS OF CAUSES OF INFANT MORTALITY IN SUCCESSIVE QUINQUENNIA 1896–1970

(A) – Recorded Deaths

Years	1 Total Live Births	2 Total Deaths Under 1 Year of Age	3 Infectious Diseases (exclud- ing Tubercu- losis)*	4 Tuber- cular Diseases	5 Nervous Diseases	6 Respira- tory Diseases	7 Digestive Diseases	8 Malforma- tions Premature Birth, Maras- mus &c.	9 External Causes
1896/1900	111,700	21,160	1,508	698	2,476	3,575	6,376	5,698	819
1901/1905	118,801	20,353	1,546	644	2,516	3,484	5,187	5,732	565
1906/1910	118,313	17,739	1,613	465	2,052	3,146	3,902	5,520	539
1911/1915	111,872	15,458	1,309	345	1,432	2,916	3,635	4,953	426
1916/1920	99,451	11,510	1,116	202	1,083	2,821	1,872	4,107	179
1921/1925	104,217	10,497	1,066	200	573	2,776	1,786	3,764	120
1926/1930	95,701	9,002	978	109	401	2,553	1,670	2,981	81
1931/1935	88,644	7,904	902	82	368	2,050	1,184	3,125	67
1936/1940	80,936	6,226	573	74	519	1,457	698	2,691	84
1941/1945	71,648	5,512	341	71	403	1,704	548	2,193	131
1946/1950	88,788	5,034	311	47	213	1,109	963	2,226	111
1951/1955	78,464	2,626	83	10	28	480	132	1,792	63
1956/1960	79,226	2,149	31	—	24	384	82	1,576	30
1961/1965	78,924	2,006	19	2	20	409	83	1,406	52
1966/1970	59,928	1,299	45*	—	25	267	53	864	45

*Since 1968 this column has included cases of Enteritis and other Diarrhoeal Diseases, previously included in column 7.

(B) – Death Rates

Years	Death Rates per 1,000 Live Births								
	1	2	3	4	5	6	7	8	9
	Birth Rate per 1,000 population	All Deaths Under 1 Year of Age	Infectious Diseases (excluding Tuberculosis)	Tubercular Diseases	Nervous Diseases	Respiratory Diseases	Digestive Diseases (including Diarrhoea)	Malformations Premature Birth, Marasmus, &c.	External Causes
1896/1900	33.4	189	12.7	6.2	22.1	32.0	57.1	51.0	7.3
1901/1905	33.4	172	13.0	5.5	21.2	29.3	43.7	48.1	4.7
1906/1910	32.2	149	13.6	3.9	17.4	26.6	33.0	46.7	4.6
1911/1915	29.3	137	11.6	3.1	12.8	26.1	32.6	43.1	3.8
1916/1920	24.9	116	11.1	2.0	10.9	28.4	18.8	42.0	1.8
1921/1925	25.1	100	10.2	1.9	5.5	26.6	17.1	36.1	1.2
1926/1930	22.1	94	10.2	1.1	4.2	26.7	17.4	31.1	0.8
1931/1935	20.5	89	10.1	0.9	4.2	23.1	13.4	35.3	0.8
1936/1940	19.4	77	7.0	0.9	6.4	17.9	8.8	32.9	1.0
1941/1945	21.3	78	4.8	1.0	5.6	24.1	7.7	30.7	1.8
1946/1950	22.9	56	3.4	0.5	2.3	12.3	10.5	25.1	1.2
1951/1955	20.1	33	1.0	0.1	0.3	6.1	1.7	22.8	0.8
1956/1960	20.7	27	0.4	—	0.3	4.9	1.1	19.9	0.4
1961/1965	21.4	25	0.2	0.03	0.3	5.2	1.1	17.8	0.7
1966/1970	17.4	22	0.8	—	0.4	4.5	0.9	14.4	0.8

POPULATION, BIRTH RATES, DEATH RATES, INFANT AND MATERNAL MORTALITY ETC., OF A NUMBER OF THE LARGER AUTHORITIES

1970

	Birming- ham	Bradford	Bristol	Cardiff	Kingston- upon-HullLeeds	Leicester	Liverpool	Man- chester	Newcastle upon-Tyne	Notting- ham	Sheffield
Registrar Generals Estimated Population	1,084,180	291,960	426,370	284,010	290,270	276,690	667,000	590,000	236,730	300,580	525,230
Comparability factor: —											
(a) Births	0.99	1.04	1.03	0.99	0.97	1.04	0.98	1.05	1.00	0.99	1.02
(b) Deaths	1.15	0.97	0.96	1.10	1.2	0.98	1.15	1.09	1.10	1.06	1.07
Crude birth rate per 1,000 population	16.7	19.6	14.7	15.1	17.4	17.58	16.0	15.96	14.1	16.7	15.6
Birth rate as adjusted by factor	16.5	20.4	15.1	14.9	16.9	18.28	15.7	16.76	14.1	16.5	15.9
Crude death rate per 1,000 population	11.1	13.4	12.7	11.6	10.8	12.47	12.1	12.57	13.4	13.0	12.3
Death rate as adjusted by factor	12.8	13.0	12.2	12.8	13.0	12.22	13.9	13.70	14.7	13.8	13.2
Infant mortality rate per 1,000 live births	22	24	19.8	21.0	25.0	20.97	21.1	23.36	20	23	20
Neonatal mortality rate per 1,000 live births											
Stillbirth rate per 1,000 total births	15.71	14	14.7	13	15.0	11.31	13.4	16.67	13	13	12
Perinatal mortality rate per 1,000 total births	13.9	13	13.2	13.8	12.0	12.39	16.0	15.37	12	16	12
Maternal mortality rate per 1,000 total births	27.5	25	24.8	24.0	25.0	22.54	27.2	30.00	20	27	22
Tuberculosis rates per 1,000 population											
(a) Primary notifications:											
Respiratory	0.35	0.17	0.16	0.46	0.4	0.81	0.277	0.1	0.0	0.98	—
Non-Respiratory											
(b) Deaths:											
Respiratory	0.43	0.63	0.15	0.232	0.3	0.48	0.253	0.33	0.346	0.34	0.183
Non-Respiratory	0.13	0.23	0.03	0.070	0.03	0.22	0.042	0.06	0.072	0.05	0.076
Death rates per 1,000 population from											
Cancer (all forms)	0.04	0.03	0.01	0.049	0.03	0.03	0.036	0.06	0.038	0.04	0.025
Cancer of Lungs and Bronchus	0.00	0.006	—	—	0.003	0.01	0.010	0.002	0.013	0.003	0.011
Meningococcal infections	2.39	2.41	2.38	2.165	2.5	2.45	2.6	2.66	2.919	2.8	2.60
Whooping Cough	0.67	0.60	0.60	0.529	0.8	0.57	0.847	0.84	0.917	0.75	0.816
Influenza	0.00	0.013	0.01	—	—	0.03	0.001	0.007	0.0	0.006	0.004
Measles	0.00	0.003	—	—	—	—	0.001	—	0.0	0.003	—
Acute Poliomyelitis and Encephalitis	0.06	0.113	0.21	0.158	0.04	0.02	0.105	0.18	0.106	0.19	0.12
Diarrhoea (under 2 years)	0.00	0.003	—	0.004	—	0.004	0.001	—	0.0	—	0.002
Diarrhoea (under 2 years)	—	0.000	—	—	—	—	0.001	0.003	0.0	—	—
Diarrhoea (per 1,000 live births)	0.008	0.024	0.01	0.007	3	0.03	0.016	0.015	0.013	0.02	0.02
Illegitimate live births as % of all live births	0.5	1.22	0.48	0.466	0.01	1.44	1.03	0.96	0.899	1.2	1.22
	11.2	12.3	10.4	11	11.5	12.93	11.5	18.29	12	18.0	8.91

ANALYSIS OF ALL DEATHS BY AGE AND SEX – 1970

Age Group	Male	Female	Total
Under 1 year	153	72	225
1	2	3	5
2	10	3	13
3	3	2	5
4	1	2	3
5–	14	10	24
10–	9	10	19
15–	20	6	26
20–	24	13	37
25–	15	6	21
30–	18	18	36
35–	53	13	66
40–	57	40	97
45–	139	93	232
50–	195	149	344
55–	373	234	607
60–	564	342	906
65–	651	442	1,093
70–	615	547	1,162
75–	504	629	1,133
80–	340	683	1,023
85–	191	451	642
90–	61	213	274
95–	7	50	57
Totals	4,019	4,031	8,050

ANALYSIS OF INFANT DEATHS BY AGE AND SEX – 1970

Age Groups	Male	Female	Total	
Under 1 day	39	28	67	
1 day	23	3	26	
2 days	5	8	13	
3 days	5	4	9	
4 days	4	—	4	
5 days	1	—	1	
6 days	—	1	1	
Total under 1 week	77	44	121	(A)
1 week (7–13 days)	5	2	7	
2 weeks (14–20 days)	5	1	6	
3 weeks (21–27 days)	5	4	9	
Total (7–27 days)	15	7	22	(B)
Total under 28 days	92	51	143	(A+B)
1 month	12	4	16	
2 months	14	5	19	
3 months	13	3	16	
4 months	6	2	8	
5 months	7	2	9	
6 months	3	2	5	
Total (1–6 months)	55	18	73	(C)
7 months	2	1	3	
8 months	—	1	1	
9 months	2	1	3	
10 months	2	—	2	
11 months	—	—	—	
Total (7–11 months)	6	3	9	(D)
Total under 12 months	153	72	225	(A+B+C+D)

**TOTAL PRIMARY AND SECONDARY CAUSES OF DEATH
REPORTED ON DEATH CERTIFICATES – 1970**

(N.B.—Numbers relate to causes, not individual deaths)

	Cause	Male	Female	Total	Totals expressed as percentage of all causes
Underlying Primary	1	4,019	4,031	8,050	56.3%
Other Primary	2	1,877	1,905	3,782	26.5%
„ „	3	247	273	520	3.6%
„ „	4	5	7	12	0.1%
Total Primary		6,148	6,216	12,364	86.5%
Secondary	2	490	461	951	6.7%
„	3	410	404	814	5.7%
„	4	75	94	169	1.2%
Total Secondary		975	959	1,934	13.5%
Total all causes		7,123	7,175	14,298	100%

Explanatory Note

The coding procedure employed allows of the coding of up to four causes of death.

“Underlying primary” is defined as “(a) the disease or injury which initiated the train of morbid events leading directly to death, or (b) the circumstances of the accident or violence which produced the fatal injury”. In the above table it is given as Cause 1, but is not necessarily the first entry on the death certificate.

“Other primary” includes any other causes in Part I of the death certificate and “secondary” includes any causes in Part II of the death certificate.

At least one cause, the underlying primary, must be primary, but the other causes (if any) may be either primary or secondary, or any combination of the two. The numbers 2, 3 or 4 indicate the order of these causes, as categorised for tabulation, not necessarily as they appear on the death certificate.

SUMMARY OF DEATHS FROM CARDIOVASCULAR AND RESPIRATORY CAUSES FOR CERTAIN OCCUPATIONS – 1970

(The following codes of causes of death (W.H.O. 8th Revision Intermediate List of 150 causes) are included: A81–84, 86–93, 95–96. Underlying causes only).

Age Group	Local Government Officers		Motor Drivers, Lorrymen, etc.		Teachers	
	Male	Female	Male	Female	Male	Female
40 – 44	—	—	2	—	1	—
45 – 49	—	—	2	—	—	—
50 – 54	—	—	4	—	—	—
55 – 59	—	—	3	—	3	—
60 – 64	2	—	4	—	3	1
65 – 69	3	—	5	—	3	1
70 – 74	4	—	5	—	1	5
75 – 79	2	—	1	—	3	3
80 – 84	—	—	—	—	1	9
85 – 89	1	—	—	—	3	6
90 – 94	1	—	—	—	—	1
Totals	13	—	90	—	18	26
Deaths from <i>all</i> causes in these occupations	21	1	171	—	21	40

DETAILS OF THE BROAD GROUPS OF CAUSES USED IN THE SUMMARY BY AGE GROUP OF DEFINED CAUSES OF DEATH – 1970

Code numbers relate to the Intermediate List of 150 causes (List A) in the W.H.O. Manual (1967 edition).

- Infectious and Infective Diseases

A 1-44, A 72, A 80, A 81, A 89-93, A 99

A 100, A 105, A 106.
- Congenital Anomalies, etc.

A 126-132, A 134, A 135.
- Neoplastic Diseases

A 45-61.
- Trauma

A 138-150 inclusive.
- Degenerative Diseases

A 82-85, A 98, A 102, A 109,

A 136, A 137.
- Other causes

All remaining causes in List A, viz.:—

A 62-71, A 73-79, A 86-88, A 94-97, A 101, A 103, A 104,

A 107, A 108, A 110-125, A 133.

SUMMARY BY AGE GROUPS OF DEFINED CAUSES OF DEATH – 1970 (N.B.—Numbers relate to causes not individual deaths).

Age Groups	Sex ratio as percentage																Percentage Total Causes					
	55-64 yrs 65 yrs & overTotals																					
Cause	0-4 yrs		5-14 yrs		15-24 yrs		25-34 yrs		35-44 yrs		45-54 yrs		55-64 yrs		65 yrs & overTotals		Total					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total					
Infectious/Infective																						
Underlying Primary	48	21	2	3	3	1	4	5	13	12	45	42	163	105	521	551	799	740	52%	48%	1,539	10.8%
Other Primary	15	7	6	—	4	3	2	2	11	4	32	15	98	71	360	368	528	470	53%	47%	998	7.0%
Secondary	2	2	—	2	1	—	1	—	5	2	20	11	65	26	167	100	261	143	65%	35%	404	2.8%
Totals	65	30	8	5	8	4	7	7	29	18	97	68	326	182	1,048	1,019	1,588	1,353	54%	46%	2,941	20.6%
Neoplastic																						
Underlying Primary	2	2	9	4	3	5	5	11	29	20	92	100	290	197	535	448	965	787	55%	45%	1,752	12.3%
Other Primary	1	—	—	1	—	1	1	3	9	7	27	46	86	63	106	120	230	241	49%	51%	471	3.3%
Secondary	—	—	—	—	—	—	1	—	1	1	2	2	26	6	65	52	95	61	61%	39%	156	1.1%
Totals	3	2	9	5	3	6	7	14	39	28	121	148	402	266	706	620	1,290	1,089	54%	46%	2,379	16.6%
Degenerative																						
Underlying Primary	5	—	—	2	2	—	6	3	38	12	157	70	382	207	1,055	1,557	1,645	1,851	47%	53%	3,496	24.5%
Other Primary	9	1	3	4	5	5	6	3	19	11	61	53	217	127	519	699	839	903	48%	52%	1,742	12.2%
Secondary	—	1	—	—	—	—	1	—	2	4	16	8	56	33	259	294	334	340	50%	50%	674	4.7%

Secondary	13	6	-	-	-	-	1	1	-	-	-	-	-	-	-	1	1	16	20	33%	19	0.6%
Totals	157	82	2	4	1	2	2	2	2	-	2	-	-	2	3	4	169	96	64%	36%	265	1.9%
Trauma																						
Underlying Primary	12	4	8	5	31	6	9	1	16	2	18	8	33	10	53	144	180	180	50%	50%	360	2.5%
Other Primary	2	2	1	1	1	2	-	-	2	-	-	1	1	-	1	-	8	6	47%	43%	14	0.1%
Secondary	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	3	3	3	50%	50%	6	0.0%
Totals	14	6	9	6	32	8	9	1	19	2	18	9	35	10	55	147	191	189	50%	50%	380	2.7%
Other Causes																						
Underlying Primary	11	3	2	2	4	5	7	3	13	7	21	22	69	55	203	314	330	411	45%	55%	741	5.2%
Other Primary	12	2	6	3	2	2	5	5	13	5	42	26	94	83	297	413	471	539	47%	53%	1,010	7.1%
Secondary	6	2	2	1	1	2	1	-	2	2	21	13	53	42	180	342	266	404	40%	60%	670	4.7%
Totals	29	7	10	6	7	9	13	8	28	14	84	61	216	180	680	1,069	1,067	1,354	44%	56%	2,421	16.9%
Summary of above totals																						
Infectious/Infective	65	30	8	5	8	4	7	7	29	18	97	68	326	182	1,048	1,019	1,588	1,353	54%	46%	2,941	20.6%
Neoplastic	3	2	9	5	3	6	7	14	39	28	121	148	402	266	706	620	1,290	1,089	54%	46%	2,379	16.6%
Degenerative	14	2	3	6	7	5	13	6	59	27	234	131	655	367	1,833	2,550	2,818	3,094	48%	52%	5,912	41.3%
Congenital	157	82	2	4	1	2	2	2	2	-	2	-	-	2	3	4	169	96	64%	36%	265	1.9%
Trauma	14	6	9	6	32	8	9	1	19	2	18	9	35	10	55	147	191	189	50%	50%	380	2.7%
Other Causes	29	7	10	6	7	9	13	8	28	14	84	61	216	180	680	1,069	1,067	1,354	44%	56%	2,421	16.9%
Totals	282	129	41	32	58	34	51	38	176	89	556	417	1,634	1,007	4,325	5,409	7,123	7,175	49.8%	50.2%	14,298	100%

Discrepancies in totals in the final percentage column are caused by rounding of final digits to one decimal place.

ANALYSIS OF CAUSES OF MORTALITY

Deaths from certain Groups of Diseases in each decade from 1871 to 1970.

Years	(a) Infective diseases (less Influenza and Tuberculosis)	(b) Tubercular diseases	(c) Respiratory diseases (including Influenza)	(d) Digestive diseases	Total Deaths from (a), (b), (c) & (d)	(e) Cancer	Total Deaths from all causes
1871-1880	27,205 (19.2)	19,869 (13.5)	29,763 (20.2)	14,747 (10.0)	91,584 (62.9)	2,015 (1.4)	147,005
1881-1890	19,748 (14.1)	17,870 (12.7)	32,507 (23.2)	13,186 (9.4)	86,311 (59.4)	2,820 (2.0)	146,195
1891-1900	13,515 (9.3)	16,714 (10.8)	35,819 (24.6)	18,491 (12.7)	84,539 (57.4)	4,223 (2.9)	145,522
1901-1910	13,967 (8.6)	16,054 (10.6)	32,995 (21.8)	18,163 (12.0)	81,179 (53.0)	6,480 (4.3)	150,962
1911-1920	10,417 (7.9)	14,946 (10.9)	36,480 (27.3)	12,282 (8.9)	74,125 (55.0)	7,603 (5.5)	137,323
1921-1930	7,831 (6.6)	12,664 (10.7)	29,447 (25.0)	8,184 (6.9)	58,126 (49.4)	9,852 (8.4)	117,756
1931-1940	6,473 (5.6)	9,413 (8.1)	18,196 (15.7)	5,987 (5.2)	40,069 (34.7)	12,619 (10.9)	115,632
1941-1950	2,645 (2.6)	6,987 (7.1)	15,728 (15.9)	4,328 (4.4)	29,723 (30.1)	13,265 (13.7)	98,347
1951-1960	621 (0.7)	2,063 (2.2)	15,315 (16.8)	2,570 (2.8)	20,569 (22.5)	15,986 (17.7)	90,642
1961-1970	265 (0.3)	512 (0.6)	14,674 (17.3)	2,014 (2.4)	17,465 (20.6)	17,159 (20.3)	84,591

Figures in parenthesis indicate the percentage of total deaths from all causes (Proportionate Mortality).

Since 1962 the columns have included the following classes:—

Column	(a)	Class I less Tuberculosis
”	(c)	Class VIII
”	(d)	Class IX
”	(e)	Class II

TUBERCULOSIS RATES

INCIDENCE, PREVALENCE AND MORTALITY RATES FOR PERIODS 1958 – 1970 INCLUSIVE

Year	Incidence Rate per 1,000 of population			Prevalence Rate per 1,000 of population*			Mortality Rate per 1,000 of population		
	Pulmonary	Non		Pulmonary	Non		Pulmonary	Non	
		Pulmonary	Over-all Total		Pulmonary	Over-all Total		Pulmonary	Over-all Total
1958	1.04	0.10	1.15	11.31	1.00	12.30	0.143	0.009	0.152
1959	2.15	0.06	2.22	10.53	0.87	11.40	0.135	0.004	0.139
1960	0.58	0.06	0.64	11.22	0.75	11.97	0.107	0.004	0.111
1961	0.54	0.07	0.62	10.14	0.65	10.79	0.107	0.008	0.115
1962	0.59	0.07	0.65	9.05	0.61	9.66	0.099	0.009	0.109
1963	0.53	0.06	0.59	8.02	0.54	8.57	0.073	0.005	0.078
1964	0.37	0.04	0.41	7.14	0.51	7.64	0.052	0.004	0.056
1965	0.34	0.05	0.39	5.84	0.39	6.23	0.058	0.001	0.060
1966	0.33	0.04	0.37	5.17	0.39	5.56	0.065	0.007	0.072
1967	0.33	0.04	0.37	4.59	0.39	4.98	0.061	0.007	0.068
1968	0.32	0.05	0.37	4.05	0.39	4.44	0.057	0.007	0.064
1969	0.27	0.04	0.32	3.41	0.38	3.79	0.0354	0.0044	0.0398
1970	0.25	0.04	0.30	3.15	0.40	3.55	0.036	0.010	0.046

N.B.— From the 23rd February 1959 to the 21st March 1959, a very large Mass Radiography Campaign was held in the City during which 454,286 persons were x-rayed. This produced a temporary increase in incidence and prevalence rates of pulmonary tuberculosis which is reflected in the table above.

*No. of cases on register at beginning of year x 1,000

Population as at Mid-year.

TUBERCULOSIS

NOTIFICATIONS – AGE GROUPS – 1970

Age	Male	Female	Total
–1	–	1	1
1–	1	2	3
2	2	1	3
3	–	1	1
4	1	1	2
5	7	8	15
10	–	2	2
15	2	6	8
20	10	8	18
25	10	6	16
30	7	4	11
35	6	6	12
40	2	6	8
45	13	4	17
50	16	8	24
55	11	6	17
60	12	4	16
65	10	4	14
70	4	2	6
75	1	–	1
80+	1	1	2
Age unknown	–	–	–
Totals	116	81	197

NOTIFICATIONS OF TUBERCULOSIS – 1928 - 1970

Year	Children (0–4 years)		Schoolchildren (5–14 years)		Adolescents & Adults (15+ years)	
	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary	Pulmonary	Non- Pulmonary
1928	93	159	407	244	1,968	242
1929	106	164	425	238	1,975	269
1930	98	178	470	256	1,890	263
1931	88	163	365	267	1,805	289
1932	71	125	277	279	1,757	268
1933	77	138	262	266	1,941	250
1934	56	107	223	234	1,624	244
1935	36	93	167	178	1,494	231
1936	36	85	185	165	1,424	197
1937	30	77	128	159	1,397	172
1938	43	82	117	118	1,281	186
1939	24	64	72	78	1,117	175
1940	26	59	51	67	1,234	148
1941	33	68	44	79	1,225	158
1942	32	63	54	84	1,284	201
1943	47	60	64	107	1,368	168
1944	29	45	68	58	1,344	147
1945	35	45	60	70	1,360	133
1946	35	40	63	72	1,380	125
1947	50	37	88	69	1,341	128
1948	51	49	79	49	1,490	130
1949	63	41	77	63	1,479	107
1950	106	32	113	41	1,353	91
1951	106	26	101	47	1,328	87
1952	90	37	161	35	1,318	67
1953	77	18	130	27	1,175	78
1954	46	22	114	28	975	97
1955	46	24	82	23	951	71
1956	34	9	88	13	938	81
1957	46	9	79	12	892	80
1958	47	17	61	11	686	48
1959	29	12	54	6	1,550	30
1960	17	3	24	5	398	36
1961	19	6	26	6	360	42
1962	24	3	23	2	391	45
1963	35	3	37	2	319	38
1964	16	3	17	2	240	23
1965	9	3	15	3	225	28
1966	12	—	15	4	208	26
1967	6	1	9	3	219	25
1968	7	—	9	3	203	30
1969	8	1	9	—	169	27
1970	8	2	16	1	145	25

Health Education

Health Education is a rapidly expanding and important field. From time to time various aspects are highlighted. At present, attention has been called to the problems posed by prevention of Venereal Disease and Drug Misuse.

A circular letter was sent by the Medical Officer of Health to Heads of Further Education Colleges advising them of the availability of lecturers from the Department on the subject of Venereal Disease, and copies of Venereal Disease posters were sent to them and distributed to the schools.

With regard to Drugs, a notice was put in the Education Department Bulletin informing Heads that assistance was available from the Department.

Venereal Disease, Drugs, and the related subject of sex education are not subjects easily dealt with satisfactorily. There are no generally applicable rules that can govern the content of a lecture or the method adopted, and the advice and co-operation of the teaching staff are essential in tailoring approach to age, background and intelligence.

Much of the work of the Section continues to be in support of the educational activities of departmental staff whose educational role is part of their main professional work. Visual aids are important in achieving effective communication with the groups whom they address, in what is often very limited time.

Information

Advice and information, and where possible posters or pamphlets, on various topics, were available to staff and public. There is a limit to the amount of literature and posters that can be distributed because of the cost of many of the items. Students and school children continue to make much use of this service.

Visual Aids Display

Visual aids used by staff in support of Health Education activities were also much in demand and extra equipment was purchased; 16mm films are particularly useful, but again, the film library can be expanded only slowly due to the high cost of such material. In all, some 250 issues of projection equipment were made, mainly to staff.

Display and exhibition equipment were acquired during the year and various displays were made, mainly on the topic of prevention of smoking; the department took part in the nursing careers exhibition of the United Liverpool Hospitals with exhibits from the health visitors, district nurses and day nurseries. This was of great value in putting the whole area of community nursing before the children and teachers of the city's schools.

Liverpool Show

A small exhibit was provided for the Liverpool Show on the topic of 'Tuberculosis' (we are grateful to the St. John Ambulance Brigade for providing us with space in their tent). The continuing importance of prevention of tuberculosis tends to be overlooked, parents need to be reminded of the necessity for their children to receive the protection of B.C.G. vaccination if tuberculosis is to remain a disease of the past.

Lectures

The Health Education Officer provided lectures in health education for student district nurses, student health visitors and student Public Health Inspectors.

He also provided some 150 lectures to schools, colleges and the general public. This is very time consuming when preparation and travel are taken into account. It is, however, essential that information does reach certain groups by way of lectures, thus providing at the same time necessary opportunity for discussion, for this reason, the time is well spent.

A one day seminar 'Misuse of Drugs' was provided for health visiting staff; this also afforded opportunity for staff to appraise relevant visual aids.

Training

A weeks course was provided for school nurses which covered sex education including venereal disease and misuse of drugs. This afforded opportunity for discussion of the school nurses developing role in contributing to school health education programmes.

Health Education is developing rapidly, and it is essential to keep abreast of these developments. The Health Education Officer was able to attend a seminar organised by the Health Education Council, and their training conference later in the year.

The Health Education Officer attends the Committee on education in personal relationships and is also a member of the working party on illegitimacy; and the Merseyside Council on Drug Taking.

Liaison

The Department continues to work closely with the Merseyside Cancer Education Committee in providing lectures to schools and to the general public; the medical officers of the Department provided in all some 150 lectures on Health Education topics, the majority on the subject of Cancer prevention.

Demands for Health Education Service of various kinds continue to grow, the existing facilities are not adequate to cope. Expansion of the service is essential if the benefits which Health Education can provide in prevention of illness, improvement in health, and better use of Health Services are to follow.

Epidemiology

The number of cases of infectious diseases notified during 1970 rose sharply, mainly because of an increase in measles, of which there were 7,110 cases as compared with the abnormally low figure of 1,112 in 1969. Other diseases in which there was an increase included food poisoning, scarlet fever and whooping cough, but decreases occurred in dysentery, infective jaundice, and tuberculosis.

Exclusion of Children from School

The total number of children excluded from school on account of infectious disease was 6. The average period of exclusion was 24 days. The number excluded was very small compared with previous years, on account of a change in policy brought about by the use of antibiotics and improved knowledge of carrier states.

Dysentery

During 1970, 84 cases were notified, a much lower number than usual. The following table gives the number of cases of dysentery notified between 1960 and 1970.

1960	515
1961	335
1962	296
1963	383
1964	313
1965	259
1966	372
1967	425
1968	341
1969	386
1970	84

When a case is notified the patient is visited and, as soon as possible, a bacteriological diagnosis is made. The situation is then assessed. Food handlers are invariably excluded from work involving food handling. In cases of children and people not handling food, careful consideration is given to the need for exclusion, and this is avoided if it is at all possible, provided that, at the same time, the spread of the disease can be adequately prevented.

Food Poisoning and Salmonella Infection (excluding typhoid and paratyphoid)

It is customary to classify outbreaks of food poisoning and salmonella infection into three groups: (a) general outbreaks, which comprise two or more unrelated cases due to a common cause; (b) family outbreaks where two or more cases are related; or (c) single cases not connected with any other.

The total number of cases coming to the attention of the Department was 155, this number being an increase on the previous year. Of these, 25 occurred in a series of 11 family outbreaks, 16 occurred in two general outbreaks, and there were 114 sporadic cases.

A table giving the organisms found in notified cases is listed below:—

Organism	Number of persons from whom organism was isolated
Salmonella agona	19
„ anatum	2
„ bovis mortificans	1
„ bredeney	3
„ derby	7
„ dublin	1
„ enteritidis	5
„ give	1
„ haardt	1
„ heidelberg	43
„ indiana	20
„ infantis	1
„ livingstone	2
„ oranienburg	1
„ panama	20
„ thompson	1
„ typhimurium	23
„ virchow	2
„ untypable	2
	<hr/> 155 <hr/>

One of the general outbreaks occurred in May at a Training School. The suspected meal included roast pork cooked the previous day and kept in a refrigerator overnight. Some of it was reheated as it appeared underdone. This meal was eaten by 127 persons who were attending a course, having come from all parts of the country.

Twelve of them were ill, their symptoms including diarrhoea and abdominal pain, and the faecal specimens of nine of these were positive for salmonella heidelberg. One was admitted to Fazakerley Hospital for three weeks, and then discharged as a convalescent carrier. Two persons were members of the kitchen staff, and these were excluded from food-handling until clear of infection. The ten other members of the kitchen staff were found to be negative. Another person on the staff was found to be positive, though not ill. His specimens did not become clear till September. Some of those who were ill and were carrying the organisms returned to their home addresses in other parts of the country before they were clear, and in these cases the Medical Officers of Health of the areas concerned were informed.

It was not possible to prove the source of infection in this outbreak. None of the suspected food was available for bacteriological examination, and swabs taken of working surfaces and fittings in the kitchen were negative.

Infective Jaundice

During the year 189 cases were notified. There were also 2 deaths from this cause.

Poliomyelitis

No cases occurred.

Typhoid

A number of contacts of cases occurring mostly in parties of travellers from Spain were investigated. None of the cases lived in Liverpool, and none of the Liverpool contacts proved positive.

Paratyphoid

One Liverpool case, a boy of 13 years of age, was reported during the year. No evidence of the source of infection was found.

Another child, aged 6, was diagnosed as paratyphoid in another part of the country, and is not included in the figures for Liverpool. He and his family moved to Liverpool before investigations were completed, and the case was notified to this department. Whilst in Liverpool the child gave a positive specimen (paratyphi B), the other members of his family being negative. The house in which the family were staying contained four other families, fifteen people in all, and these were investigated at the same time, but fortunately all were negative. Shortly afterwards the child and his family returned to the original area, and surveillance was transferred there.

Winter Epidemic Spotting

As in previous years, the co-operation of various large employers was obtained to return figures of sickness absenteeism from all causes and from influenza. These figures revealed an increase both in general sickness and in influenza from about the middle of December 1969, continuing for about five weeks, with the peak occurring in the first week of January 1970.

During the year there were 70 deaths from influenza, the highest figure since 1961. Of these, 68 occurred during the first quarter of the year, 60 of them in January.

Claims for sickness benefit were also much higher than usual for the first three weeks of January, but for most of the rest of the year were below the level of 1969.

Control of Radiation Hazards

Registered Users under Radioactive Substances Act, 1960

Two local firms were deleted from the Register during the year having ceased to hold radioactive materials on their premises. The names of four new users were added to the Register.

Use of Radioactive Sources in Schools, Establishments of Further Education and Training Colleges

Forty-four schools are now using radioactive substances.

Tables listing all sources at present held in the City, excluding hospitals and the University, are given below:—

RADIOACTIVE SEALED SOURCES – INDUSTRIAL ESTABLISHMENTS

Nature of Source	Size of Source	Number of Sources
Americium 241	100 millicuries	1
	90 „	1
Caesium 137	0.5 „	1
	10 „	1
Carbon 14	1 microcurie	1
	0.5 „	1
	0.75 „	1
Cobalt 60	1 millicurie	1
Iridium 192	500 „	1
	20 curies	1
Radium 226	500 microcuries	1
	7.5 millicuries	1
Strontium 90	469 „	1
Thallium 204	24 „	1
	30 „	1
Thulium 170	300 „	1
	20 curies	1
Tritium	60 millicuries	1
	10 curies	2

RADIOACTIVE SEALED SOURCES – EDUCATIONAL ESTABLISHMENTS

Nature of Source	Size of Source	Number of Sources
Americium 241	0.125 Microcurie	27
	1 „	1
	5 „	8
Cobalt 60	5 „	42
Plutonium 239	0.1 „	14
	5 „	2
Radium 226	5 Millicuries	1
	5 Microcuries	53
Strontium 90	0.125 „	26
	1 „	12
	5 „	10
	9 „	22
Thorium	1 „	2
Hydroxide	4 „	1
Tritium	10 Curies	1

MEDICAL CARE OF IMMIGRANTS

Medical Arrangements for Long-Stay Immigrants

The scheme introduced by the Ministry of Health in January 1965 has continued. Under the scheme medical inspectors at ports endeavour to obtain destination addresses from those immigrants who are referred to them. They then forward these addresses to the Medical Officers of Health of the areas concerned, who arrange for the immigrants to be visited and given general information about the health services, and persuaded to register themselves and their dependants with general medical practitioners, with a view particularly to chest X-ray where this is appropriate.

When notification is received of the arrival of an immigrant in Liverpool arrangements are made for a health visitor to call at the address given. Quarterly returns of figures relating to the visits are made to the Department of Health and Social Security.

A summary of the results for the year is given below:—

Advice notes were received relating to 241 persons said to be in Liverpool addresses.

Successful visits were made relating to 190 persons, and in addition successful visits were made to 4 persons whose advice notes were received towards the end of 1969.

Not traced during the period: 51 persons.

In addition, 36 notifications were received relating to persons living in adjacent areas, and these were forwarded to the correct local authorities.

Occupational Health

This section of the Health Department has as its primary concern the occupational health of Corporation employees, but it also has responsibilities in relation to the general public in such matters as the granting of concessionary travel passes and driving licences for epileptic drivers. Much of the work consists of routine medical screening of normally healthy people and for this purpose the Section is equipped with electrocardiograph, vitalograph and other diagnostic aids together with facilities for simple estimations of blood and urine. Chest X-rays are arranged through the Liverpool Central Chest Service for those persons whose work brings them into contact with children or whose clinical examination suggests the need for further chest investigations. Such routine screening procedures have proved their value on numerous occasions in unmasking asymptomatic disease states such as diabetes mellitus, pyelonephritis and early neoplasia. When necessary, persons are referred for further investigation either to their own general practitioner or directly to a hospital consultant. The latter course applies particularly to cases from the Police or Fire Brigade for whose health the section is directly responsible under Home Office regulations.

Prospective employees of officer grades and certain other specified grades, such as home helps or cooks, who might otherwise constitute a health hazard, are examined to determine their medical fitness for their post. Those classed as manual workers are examined prior to entry into the superannuation scheme. Employees of the Corporation are also seen following lengthy sickness absences to determine their fitness to continue in their present employment or whether they might be considered for some other less demanding work. Those cases of illness and accidents that require lengthy sickness absences are kept under supervision by the department until they are ready to return to their duties. In some cases, such as a man suffering from bronchitis in open air work, the employee's health and his ability to cope with his work are reassessed from time to time. Advice is given regarding the type of employment suitable for those unable to cope with their original duties and for this purpose there is a close liaison between the section and the welfare and personnel officers of other Corporation departments as well as the Personnel Unit of the Town Clerk's office. Those whose health renders them unfit for any employment within the Corporation are retired on medical grounds. A number of examinations are also conducted at the request of other local authorities.

The Occupational Health Section also acts in a consultative capacity to the Liverpool and Bootle Constabulary and the Liverpool Fire Brigade. This work involves the examination of cadets and police recruits on appointment and the continued medical supervision of police cadets at six-monthly intervals. Sickness and accident cases also undergo continued medical supervision from the department and examinations are conducted for pension purposes and the assessment of permanent disabilities. Within the orbit of the police examinations are to be included those of traffic wardens and school crossing patrols. Fire Brigade personnel attending breathing apparatus courses are also examined to determine their fitness to undertake the course.

Generally other special examinations are carried out in the department. These include examinations under the terms of the Travel Concessions Act 1964 to determine whether applicants for concessionary travel passes are entitled to them. According to the Act, there must be a minimum degree of leg disability of 35% before a pass can be granted. Mersey Tunnel workers are given six-monthly examinations due to the nature of their work inside the Tunnel with exposure to exhaust fumes etc. Labourers undertaking work underground in the construction and repair of sewers and water mains are given periodical examinations due to the hazards of their employment especially in relation to pneumoconiosis. Laboratory specimens are also obtained from this group of workers and from contractors' employees engaged in digging new water mains in order to eliminate the dangers of enteric and other water-borne infections.

In 1970 two new categories of examination were introduced as a result of Parliamentary decisions. These were applicants for heavy goods vehicle licences, of whom 231 were seen from various Corporation Departments, and members of the public applying for driving licences under the regulations relating to epilepsy and driving.

The work of the department again showed an increase in 1970 as compared with the previous year. A total of 6,168 cases were dealt with representing a rise of 8.8% over 1969. The various forms of examinations and the numbers attending are analysed in Table I.

In relation to Corporation employees, 278 were found to be unfit for their employment and were retired on medical grounds. 165 manual workers were found unfit for entry to the superannuation scheme and 49 new employees were found unfit to take up their posts. This total of 492 cases as unfit represents approximately 9.5% of those examined. This percentage remains remarkably stable from year to year. Of this total 114 were found unfit for specific posts or for superannuation on other than primarily pathological grounds, for example failure to reach required physical standards or in the case of entry to the superannuation scheme because of poor sickness records. Table II represents an analysis of the 372 cases where sickness was the primary cause for retirement or unfitness.

It will be noted that cardiovascular and respiratory conditions together are 52.7% of causes of permanent unfitness. The highest single condition was chronic obstructive pulmonary disease which, together with its cardiac complications accounted for 23.6% of the total. The second highest single condition was ischaemic heart disease (12.1%). These percentages are slightly higher than in 1969 for a comparable number of cases.

As expected the great majority of cases of chronic obstructive pulmonary disease (82%) came from social classes 4 and 5. The remaining 18% came from social class 3. This distribution can readily be explained by the work conditions of the two lower social classes. Not so readily explicable however is the fact that 60% of the cases of ischaemic heart disease come from these same two classes. Only five cases (12.5%) came from social classes 1 and 2 and the remainder from social class 3. It is probable that this distribution does not reflect the true extent of ischaemic heart disease among the Corporation's working population since those engaged in heavy manual work are less likely

to be able to cope with their duties with this condition than those in sedentary employment. The referral of cases of ischaemic heart disease to the Occupational Health Section is thus possibly to be seen as a function of the nature of their employment rather than a reflection of the total number suffering from this condition within the Corporation.

Table I
ANALYSIS OF ATTENDANCES

Corporation Employees		
Medical examinations on appointment	2,806	
Medical examinations for superannuation	1,334	
Sickness and injury cases examined		
(a) for suitability for continued employment	697	
(b) for extension of sickness pay	69	
Medical examination for Heavy Goods Vehicle Licences	231	
	<hr/>	5,137
Medical examinations for other authorities		66
Special Examinations		
Under Travel Concessions Act, 1964	673	
Under Regulation 22(2) of Motor Vehicles		
(Driving Licences) Regulations, 1970	24	
Under National Insurances (Industrial Injuries) Act, 1946		
(Pneumoconiosis)	77	
Mersey Tunnel Workers	30	
Fitness of Firemen for Breathing Apparatus courses	151	
Private Contractor's employees laying new water mains	10	
	<hr/>	965
	Total	6,168

Table II

**CLASSIFICATION OF PATHOLOGICAL CONDITIONS CAUSING EARLY
RETIREMENT AND UNFITNESS FOR EMPLOYMENT OR SUPERANNUATION**

Diseases of the Cardio-Vascular System

Ischaemic Heart Disease (including 10 cases of myocardial infarction)	40	
Hypertension/Hypertensive Heart Disease	32	
Cor Pulmonale (secondary to obstructive pulmonary disease)	12	
Valvular Disease of the Heart	9	
Peripheral arteriosclerotic vascular disease	5	
Varicose Veins (with or without phlebothrombosis or thrombophlebitis)	11	
	<hr/> 109	(29.3%)

Diseases of the Respiratory System

Chronic obstructive respiratory disease	76	
Bronchial Asthma	3	
Pulmonary Tuberculosis	2	
Interstitial pulmonary fibrosis	1	
Bronchogenic carcinoma	5	
	<hr/> 87	(23.4%)

Diseases of the Digestive System

Duodenal ulcer	7	
Hepatic cirrhosis	1	
Pancreatic tuberculosis	1	
Cholecystitis	1	
Rectal prolapse	1	
	<hr/> 11	(2.9%)

Diseases of the Haemopoietic System

Chronic microcytic anaemia	4	
Multiple myelomatosis	1	
	<hr/> 5	(1.3%)

Diseases of the Urogenital System

Chronic pyelonephritis	2	
Nephrotic syndrome	1	
Renal tuberculosis	1	
Renal carcinoma	1	
Renal gout	1	
Benign prostatic hypertrophy	1	
Undescended testes	1	
Menorrhagia	1	
Uterine carcinoma	2	
	<hr/> 11	(2.9%)

Diseases of the Endocrine System

Thyrotoxicosis	1	
Diabetes mellitus	7	
	<hr/> 8	(2.2%)

Diseases of the Musculo-Skeletal System

Osteoarthritis	22	
Rheumatoid arthritis	9	
Lumbar intervertebral disc lesions	11	
Cervical spondylosis	3	
Chronic osteomyelitis	1	
Chronic idiopathic myositis	1	
Post-traumatic sequelae	12	
	<hr/> 59	(15.8%)

Diseases of the Skin		
Chronic allergic dermatitis	2	
Keloid acne	1	
Chronic mycotic dermatitis	1	
	<hr/>	
	4	(1.1%)
Diseases of the Ear, Nose and Throat		
Chronic otitis media	1	
Meniere's Disease	1	
Acquired perceptive deafness	1	
Acoustic neuroma	1	
Laryngeal tuberculosis	1	
Laryngeal carcinoma	1	
	<hr/>	
	6	(1.6%)
Diseases of the Eye		
Chronic glaucoma	2	
Detachment of retina	1	
Retinitis pigmentosa	1	
Traumatic sequelae	2	
	<hr/>	
	6	(1.6%)
Diseases of the Central Nervous System		
Cerebral vascular disease	8	
Epilepsy	2	
Peripheral neuritis	2	
Pseudo-bulbar palsy	1	
Neurofibromatosis	1	
Intracranial neoplasms	2	
	<hr/>	
	16	(4.5%)
Mental Disorders		
Schizophrenia	8	
Schizo-affective psychosis	1	
Manic-depressive disorder	12	
Anxiety neurosis	25	
	<hr/>	
	46	(12.3%)
Miscellaneous conditions		
Inguinal hernia	1	
Carcinoma of the breast	3	
	<hr/>	
	4	(1.1%)
	<hr/>	
Total	372	(100%)

Table III

MEDICAL EXAMINATIONS – RETURN FOR THE YEAR 1970

Department	Admission to Super. Scheme		Extension of sick pay		Fitness of newly appt. officer		Suitable to continue in employment		Total
	Fit	Unfit	Fit	Unfit	Fit	Unfit	Fit	Unfit	
Airport	7	2	—	—	5	—	—	—	14
Art Gallery	4	3	—	—	2	—	—	—	9
Baths	13	1	—	—	—	—	—	—	14
Building Surveyors	—	—	—	—	10	—	—	—	10
Central Purchasing	—	—	—	—	15	—	1	1	17
Children's	2	—	1	—	152	6	7	2	170
City Analyst	—	—	—	—	2	—	2	1	5
City Architect's	—	—	—	—	19	—	—	—	19
City Engineer's	213	30	7	1	206	1	23	18	499
City Estates	10	6	3	—	47	1	14	11	92
City Lighting	26	3	—	—	12	—	8	8	57
City Planning	—	—	1	—	20	—	—	—	21
City Treasury	1	—	—	—	141	1	3	2	148
Education	89	17	11	1	595	5	63	71	852
Fire Service	1	1	7	—	241	12	77	6	345
Health	42	4	8	—	491	6	32	22	605
Housing	15	3	1	—	82	—	6	4	111
Libraries	7	1	—	—	123	—	3	4	138
Magistrates	—	—	—	—	12	—	—	—	12
Markets	5	—	2	—	5	—	3	2	17
Mersey Tunnel	1	—	—	—	79	—	8	7	95
Museums	5	1	—	—	7	—	4	1	18
Parks and Recreation	45	15	2	—	24	1	8	7	102
Passenger Transport	379	33	1	—	52	—	1	29	495
Police	27	5	4	—	491	12	39	21	599
Probation	—	—	—	—	27	—	4	—	31
Town Clerk's	1	—	—	—	107	1	—	2	111
Water	90	21	—	—	46	1	8	5	171
Weights and Measures	—	—	—	—	9	—	—	1	10
Works	160	17	17	—	33	—	91	27	345
Welfare	26	2	2	—	70	2	16	24	142
Total	1,169	165	67	2	3,125	49	421	276	5,274
Total Fit		4,782	Cancelled				431		
Total Unfit		492	Other Authorities				66		

EMERGENCY CARE OF THE ELDERLY

Removal to Suitable Premises of Persons in Need of Care and Attention

These cases are assessed with great care, due regard being given to the medical, social and environmental aspects. Every effort is made to provide adequate support in the home, whatever the need, in order to maintain an independent existence for these elderly persons as long as possible.

Most cases visited, because of illness or general senility, can no longer be cared for at home and require hospital or residential accommodation for recovery or the maintenance of reasonable health. Whenever this situation occurs the medical and welfare problems are fully discussed with the person, and an offer of suitable premises away from home is made. The majority, when discovered in need, can be persuaded to accept admission for care and attention. The remainder, because of their condition, have no insight into their problems, and require firmer measures. In these cases Section 47 of the National Assistance Act, 1948 is invoked.

The emergency care of the elderly is undertaken in co-operation with the Social Services Department. In fact, the emergency arises as a result of their request to assist them in difficult situations.

Rehousing on Medical Grounds

The Medical Officer of Health is authorised to grant some degree of priority in rehousing to a limited number of persons on health grounds.

Housing applicants who are eligible for the Liverpool Corporation Housing Register and apply for rehousing on medical grounds may be awarded five medical points which are added to the applicant's basic points. In many cases these additional points will bring the applicant into the allocation group and he is therefore assured of rehousing. In cases of urgent need a special priority recommendation may be made for rehousing the applicant to suitable accommodation.

For housing applicants who already live in Corporation property and for medical reasons request a transfer, the Medical Officer of Health may recommend priority in only the most urgent cases owing to the excessive number of applications made.

Tenants of property included in a compulsory purchase order may require specialised rehousing. Every medical application is considered and where necessary the appropriate recommendation is made to the Director of Housing. Tenants of Corporation property who feel they are unable to manage alone in their accommodation apply to the Medical Officer for a medical recommendation to sublet to a relative who will care for them. Every case is investigated, and if it appears essential a recommendation is made to the Director of Housing.

In all cases recommended for medical priority the Director of Housing notifies the Medical Officer of Health when an offer is made to a patient, and also informs him whether the offer is accepted or not. If the offer is declined, the Director of Housing is notified whether or not the refusal was justified on medical grounds. If the refusal was justified a further offer is made to the patient, if not justified the medical priority is cancelled.

During 1970, 8,115 applications were received for rehousing on medical grounds. Of these, 5,656 were already living in council accommodation which they found unsuitable, and applied for a transfer to more suitable property, and 2,459 were resident in non-Corporation property and applied for council accommodation.

The details of each individual application were closely examined and in cases where insufficient information was given on the recommendation supplied by the General Practitioner, a visit was made by a Medical Officer, Health Visitor or Public Health Inspector. An assessment of the medical factors was then made and consideration was given not only to the individual applicant but to the whole of the family as a unit. Special recommendations were made to rehouse handicapped people in the type of accommodation most suited to their disability.

Of the applicants in council property, 340 were recommended for a transfer to alternative accommodation, and of these, 85 transfers were effected by the end of the year. Of the group living in property owned by private landlords,

174 were recommended for special priority, of whom 67 were rehoused by the end of the year. From previous years' recommendations, 90 transfers and 63 special priority cases were also rehoused in suitable accommodation during 1970. In addition 211 applicants were awarded points. Details are given in Table 1.

TABLE 1

1970	Special Priority Cases	Transfer Cases	Totals
General Medical Cases			
Number of applications received	2,459	5,656	8,115
Number recommended	174	340	514
Number re-housed	67	85	152
Number refused offers	13	10	23
Number still not accommodated	94	245	339

In nearly every case the medical factors quoted were genuinely related to the housing conditions and benefit would have been obtained from suitable re-housing. However on account of the severe shortage of housing accommodation in Liverpool, only the more serious cases could be considered, and only those applicants who had reasonable prospects of being rehoused could be recommended. Details of the numbers of recommendations made may be seen in Table 2.

TABLE 2

Diagnosis	Number awarded Points	Number recommended for Special Priority	Number recommended for Transfer	Totals
Cardiovascular	36	30	73	139
Conditions affecting Locomotion	32	42	69	143
Respiratory Disease	63	48	83	194
Psychiatric Cases	46	9	21	76
Malignant Disease	6	21	22	49
Debilitating Diseases	19	17	67	103
Blindness or Deafness	8	6	5	19
Broken Families	1	1	—	2
Totals	211	174	340	725

The most important single factor encountered was the inability to climb stairs, and many recommendations had to be made for rehousing into property accessible without the use of stairs, a category which includes accommodation accessible by lifts. Ground floor accommodation is only specified in cases where the applicant would be unable to work a lift. A breakdown of the type of recommendation made is given in Table 3.

TABLE 3

Type of Recommendation	Special Priority Allocation	Transfers	Totals
No Stairs	104	210	314
Ground Floor	21	23	44
No more than one flight of stairs	4	13	17
House	28	88	116
Aged persons and warden-controlled accommodation	7	5	12
Indoor bathroom essential	7	1	8
Urgent rehousing – no special requirements	3	–	3
Totals	174	340	514

The following are examples of some of the families assisted:—

1. A husband and wife lived in a privately rented three-bedroomed house, with the bathroom and toilet upstairs. The husband suffered from multiple sclerosis, he was unable to walk without support, had blurred vision and could not negotiate stairs. He was unable to wash in the kitchen because of the steps down from the living room and was house-bound because the steps from the road were too steep to be ramped. A special priority recommendation was made for rehousing to a ground floor flat suitable for a wheel-chair. This couple were suitably re-housed near to relatives who would assist them.
2. A couple and their two children lived in accommodation behind and over a shop, access being through an entry and a yard. The eldest child of this family died in 1966 from fibrocystic disease of the pancreas. The three-year-old daughter had been diagnosed as having fibrocystic disease of the pancreas and the lungs, and the three-week-old baby was being treated as a potential fibrocystic. Although the flat had been well maintained there were inadequate facilities for these children. A recommendation was made for a house and garden and within three months this family were rehoused.
3. A man and his wife with their young daughter lived in a basement flat in an old house. The accommodation was very damp with stone floors, the bathroom and toilet were up twenty-nine stairs and shared by four families. The parents had decorated the living room but only had a paraffin stove for heating the flat, which was reached by descending five steps from a rat-infested garden.

The husband was registered blind, trained as a telephonist and musician, and had a guide dog. The three-year-old daughter had a valve in her head to relieve tension in the fontanelle and was unable to walk without aid. This family were recommended for priority and were rehoused in a house and garden within two months.

4. An elderly man living alone in a large house and garden had a partial gastrectomy for carcinoma. His wife had been admitted to hospital for treatment of senile dementia as her husband was no longer fit to care for her at home. As there were no relatives living in Liverpool a recommendation was made for a transfer to smaller accommodation without stairs in an area where friends were willing to assist him; re-housing was accomplished within one month.
5. A couple had lived in a fourth floor tenement flat for thirty-two years. The husband recently had a lobectomy for carcinoma and was house-bound as he could not climb the fifty-six stone steps leading to the flat. A transfer was recommended to ground floor or low level accommodation without stairs, and this was completed within a month.

Cremation

The Medical Officer of Health continues to act as medical referee to the Liverpool Crematorium. The Principal Medical Officer (Epidemiology) (and Acting Medical Officer of Health in absence of M.O.H.) and the Principal Medical Officer (Mental Health) acted as deputy medical referees. The documents, which are statutory, are scrutinised at the central offices of the Liverpool Health Department before authority is given to cremate.

The number of cremations carried out during the year at the Liverpool Crematorium was 4,234. This is a slight increase over the number undertaken during 1969 (4,046).

No undue difficulties arose during the year in respect of sudden deaths occurring abroad where cremation was later carried out. Written formal requests for cremation to take place on death were received, as in former years, from several members of the public and these are filed for future reference in order that their wishes may be met.

Water Engineer's Report

WATER SUPPLY

The water supply in the area during 1970 was satisfactory both in quality and quantity.

There has been no form of contamination in which unusual action, (i.e. other than the usual methods of treatment and distribution) has been taken.

The number of dwelling houses, flats and shops with domestic living accommodation supplied from the public water mains in Liverpool was 198,024. None was supplied by a standpipe. The population of the City as estimated by the Registrar General for the 30th June 1970, was 667,000.

Seven samples of water from the aqueducts and distribution systems were examined for fluoride content. The average amount of fluoride, expressed as F, in the samples was 0.09 p.p.m. the range being from 0.04 to 0.16 p.p.m.

During the year 1970 bacteriological examinations were made on 3,749 samples of water from the aqueducts, wells, storage reservoirs, trunk mains and the distribution system. Of the 3,749 samples, 506 were taken within the City from the two wells and from sampling points on the mains other than the trunk mains. Of the 506, 93% were free from B.Coli in 100 ml. and 78% were free from coliform organisms in 100 ml.

Also, of the 3,749 samples, 1,878 were taken from the trunk mains which serve the City and other parts of the area of supply. Of the 1,878, 94% were free from B.Coli in 100 ml. and 80% were free from coliform organisms in 100 ml. Also, 73 chemical analyses were made and the results were satisfactory.

For plumbo-soveny, 286 analyses were made. The average amount of lead absorbed in these samples (excluding those taken from houses by Public Health Inspectors) of water that had passed through test lengths of lead piping was 0.04 parts per million. The supplies from both Rivington and Lake Vyrnwy were treated with hydrated lime in order to raise the pH value.

WATER ANALYSES

During the year a total of 380 samples of water were submitted from houses with lead service pipes and gave the following results:—

Samples of water held overnight	190 Average lead content 0.067 mgm/l
Samples of water after discharge of contents of service pipe by running the tap for one minute	190 Average lead content 0.042 mgm/l.

Merseyside Cancer Education

Lecture Programme

The specialist service of public education about cancer during 1970 again showed an increase over the previous year, totalling 137 meetings, as follows:

In service	1
General public, adults	23
Youth Clubs	3
Colleges and schools	96
Industrial	5
Hospital student nurses	9

Programme Development

The emphasis shifted from that of people at their place of work, as in 1969, to teenagers in college and senior school children. In the schools and colleges all groups have one session on the biological nature of cancer and the cigarette smoking/lung cancer link. The girls have a second session on subjects of interest to them in adult life — the cervical smear test and breast self-examination and in the meantime are asked to pass on information and leaflets to their mothers. Thus this teaching may have both an immediate and a long term effect.

During 1970 some of the School Nurses have sat in on the Doctors' teaching periods on cancer and it is hoped that in due course they will take over the second sessions with the girls using the Merseyside Cancer Education Committee teaching kits and materials.

Special Teaching Materials and Equipment

In anticipation of the new Report of The Royal College of Physicians, "Smoking and Health Now" slides on smoking, for use with the automatic slide/sound "daylight" equipment, were prepared and are available for use in the City. This equipment is of particular value where there is a short-stay audience, such as in a clinic or health centre waiting room, where talks and full length films are not suitable. Slides and taped commentary on cervical cytology and breast self-examination are also available for use with the equipment. Health Visitors may arrange to borrow the equipment and material from the Administrator, Mrs. P. Hobbs.

Chest Physicians' Reports

SOUTH CHEST CLINIC

Dr. F. E. Crawley, Consultant Chest Physician, writes:

The end of the year saw the retirement of Dr. C. Poniedel after more than twenty years duties in the Clinic. I doubt if in his wildest dreams in his earliest years he could have hoped that the scales which once weighed so heavily against the tuberculosis patients would now weigh so much in their favour, and that the treatment and supervision of the tuberculous, which at the beginning occupied almost all his working hours, should finally have played a relatively small part in his clinic duties.

Again this year there has been an alteration in the area covered by the Clinic which still retains a large part of the pre-1964 Central Chest Clinic area but has returned to the recently established Central Chest Service at Hatton Garden those patients resident in postal districts 1 and 2. The number of patients on the Tuberculosis Register has therefore shown a fall to 650 as a consequence of transfer to the Central Chest Clinic Register and cure of a proportion of the patients. As Dr. Poniedel has not been replaced, patients are no longer seen solely as a matter of clinical interest but only by reason of clinical need.

Total notifications of new cases of tuberculosis were 99 against 102 last year and of these 88, as against 83, were of pulmonary disease. Deaths from tuberculosis were only 4 and of patients with disease far advanced before discovery or resistant to, or intolerant of, treatment for one reason or another. Despite alteration in boundary the overall attendances of patients has shown little change, the weekly contact clinic remaining often extremely busy and non-tuberculous chest conditions occupying an increasing proportion of the clinic work.

NORTH CHEST CLINIC

Dr. W. D. Gray, Consultant Chest Physician, writes:

The number of new cases notified as suffering from tuberculosis in 1970 is 42, compared with 54 in 1969. 34 of these were pulmonary tuberculosis and 8 were non-pulmonary tuberculosis. This is a satisfactory decrease.

249 children and adults were vaccinated with B.C.G., 115 of them being children who were contacts to adult cases of tuberculosis. 254 tuberculin tests were performed. 15 patients died from tuberculosis during the year which is half the number that died in 1969 and 17 patients were removed from the register as recovered, leaving a register now of 724, an increase of 9 as compared with last year, presumably due to removals in from other districts.

Out of a total of 4,909 attendances, 2,051 were due to tuberculosis and 2,815 to non-tuberculous causes.

The note for 1970 would, therefore, seem to be one of qualified optimism, though it is still disturbing to find a number of young patients being diagnosed as suffering from active pulmonary tuberculosis. Some of these appear to have escaped B.C.G. in the Schools Campaign but others have received their infection already when tested and had escaped the prophylactic follow-up provided by the Chest Clinics.

CENTRAL CHEST CLINIC

Dr. Bleasdale, Consultant Chest Physician, writes:
The clinical work commenced in new premises at Kingsway House, Hatton Garden in April 1970. The site of the new Clinic is more convenient for the majority of patients. The first few months were utilised in equipping the Clinic for our needs and of furthering cordial professional relationships with family doctors and officers of the Health Department. During the year we were pleased to welcome as a colleague, Dr. R. A. L. Agnew, who attends for two sessions weekly.

The following is the analysis of figures for patients attending the Clinic since its transfer to the new premises:

New cases examined for the first time		
Contacts	76	
Tuberculosis notifications	24	
Other chest conditions	161	
	—	261
Old cases seen		
Tuberculosis	395	
Old contacts	49	
Other chest conditions	58	
	—	502
Total patients seen		763
B.C.G. Vaccinations (Contacts)		
Central Chest Clinic	31	

EAST CHEST CLINIC

Dr. L. H. Harris, Consultant Chest Physician, writes:
The work of the clinic did not change markedly in 1970.

The Tuberculosis Register seems stabilised at about 385, but the downward trend of new cases has continued with a low of 57 new cases in 1970. During 1970 the number of patients with positive sputum at some time during the year was only 16, including a small “hard core” of chronic resistant strains.

Contact surveillance has actually increased and revealed a reduction in the number of tuberculin positive (the ratio of positive to negative was, in fact, reversed: positive:negative 1969 3:2, 1970 2:3). The total B.C.G. vaccination figure has slightly increased (this includes newborn babies not tuberculin-tested). Health visitors visits remain the same.

There was an increase in the number of new non-tuberculous chest cases. Total attendances remain much the same.

Non-tuberculous chest work comprised about 80% of the clinic’s work during the year.

LIVERPOOL CENTRAL CHEST SERVICE

(Mass Radiography Section)

Mr. C. C. Warmer, Administrative Officer, writes:

Since January 1970 the Mass Radiography Service has formed a composite part of the Liverpool Central Chest Service, having its headquarters in Kingsway House, Hatton Garden, Liverpool 3.

The Service also has a mobile element to cover the areas in S.W. Lancs and Cheshire administered by the Liverpool Regional Hospital Board.

In conformity with the policy of the Department of Health and Social Security, X-ray examinations in 1970 were restricted mainly to:—

- (1) Patients referred by family doctors.
- (2) Examinations made at the request of the Medical Officer of Health.
- (3) The examination of contacts of cases of tuberculosis.

The work of the mobile section included 40 visits to industry and other establishments to X-ray contacts following the discovery of cases of active pulmonary tuberculosis, the number of contacts thus examined being 10,101. The unit also visited Liverpool University, teacher training colleges, centres for the attendance of Health and Education Staffs, mental hospitals, prisons and remand homes, and industry where hazards to the respiratory system were present.

During the year 26,205 X-ray examinations were made at Kingsway House, 6,616 of these being at the request of family doctors.

The mobile apparatus was used to X-ray 45,458 examinees bringing the grand total of examinations made by the Service to 71,663.

The number of cases of active pulmonary tuberculosis discovered by the Service at Hatton Garden was 37 of whom 23 were Liverpool residents. The work in the field brought to light a further 26 cases, and of this number, five were resident within the City boundary.

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Maternity and Child Health

MIDWIFERY SERVICE

During the year 328 midwives notified their intention to practise midwifery in the city, this was 17 less than in 1969. Notifications from hospital midwives numbered 284, those from domiciliary midwives 43, and one was in a nursing home.

The number of domiciliary births was 628 compared with 877 in 1969. The number of patients nursed at home after hospital confinement was 8,118; in 1969 the number was 8,592. This shows a decrease in domiciliary births of 249 and a decrease of 474 patients nursed at home after hospital confinement.

A table is given showing the number of patients discharged from each hospital, and the day of discharge. The total was 8,839 but of these, 721 were premature babies who were cared for by three specially trained midwives.

The following table shows that although the number of home assessment requests for early discharge was increased in 1970, the number of discharges between the second and fifth day after confinement has decreased slightly since 1969.

	2nd day	3rd day	4th day	5th day
1969	1,080	701	654	1,101
1970	989	838	562	917

Medical Aid

The midwives called in medical aid for 189 cases for different abnormalities. In 172 cases a doctor had already been booked for maternity medical service. Of the 189 cases 118 were for patients discharged from hospital for domiciliary attendance, and 71 were for patients booked for home confinement, or delivered at home. Details are given in the statistical appendix.

Staff

The midwifery staff at the end of the year consisted of:

- 1 Non-Medical Supervisor
- 1 Assistant Supervisor
- 1 Midwifery Tutor
- 1 Training Superintendent
- 33 Full-time Midwives
- 3 Premature-baby Midwives
- 4 Part-time Midwives

During the year one Assistant Supervisor of Midwives retired and was not replaced. The Midwifery Tutor left and a new tutor was appointed. Four midwives left the staff, two of them due to retirement. One new midwife was appointed to the staff.

Training of Part II Pupil Midwives

The training scheme continued satisfactorily with pupil midwives from Sefton General Hospital, Liverpool Maternity Hospital, Mill Road Maternity Hospital and Broadgreen Hospital. An average of 25 pupil midwives each quarter worked under the supervision of their teaching district midwives, and tutorials and practical teaching were given by the Supervisor of Midwives, the Tutor and the Training Superintendent.

One hundred and three pupils took the course and all qualified as midwives. At the end of the year, 29 were still in training. During 1970, 29 midwives worked as approved district teachers.

Student nurses undergoing obstetric training at Sefton General Hospital, Liverpool Maternity Hospital and Broadgreen Hospital continued to visit the domiciliary service and spend a day on the district.

An average of 23 students every three months spent a morning visiting with a midwife, and attended a child health clinic in the afternoon.

Accommodation

Twenty-one midwives occupied corporation houses or flats, four of these lived in furnished accommodation.

Transport

Thirty-four midwives (both full-time and part-time), the premature baby team and the administrative staff were car owners and drivers, three midwives were cyclists and seven used public transport.

Ante Natal Care

Ante natal care of the mother was carried out at 24 general practitioner clinics, including the Health Centres at Toxteth and Cantril Farm, at local authority clinics run by the midwives and also by visits to the homes of patients.

Midwives attended 1,043 sessions with family doctors, 80 sessions at medical officers' clinics, and 1,313 at their own clinics. Visits to the homes of patients numbered 7,656.

Care During Labour

During the year a trial was made of a new drug for the relief of pain in labour. The drug, pentazocine, has been approved by the Central Midwives Board for use by midwives without a doctor's prescription, and is not included under the dangerous drug regulations. The first 50 patients to whom this drug was given had satisfactory labours with no adverse effects, and the drug has now been supplied to all the midwives.

Post Natal Care

After confinement midwives paid 9,461 visits to their booked cases, 39,409 visits to mothers and babies discharged home from hospital before the end of the lying-in period, and 8,371 visits to patients referred from hospitals for the assessment of home conditions. These figures show an increase in the number of home conditions assessment visits of 2,823 over 1969.

Postgraduate Courses

The statutory courses held in various parts of the country were attended by one assistant supervisor of midwives and eight midwives.

The Transfusion Unit

The Emergency Obstetric Flying Squad was called out ten times to the homes of patients. Blood transfusion was not necessary in any of these cases.

Reasons for calling the Unit were:—

Primary post partum haemorrhage	4
Secondary post partum haemorrhage	1
Retained placenta	3
Asphyxia neonatorum	1
Epileptic fits	1

Six patients were transferred to hospital, and four were able to remain at home.

Emergencies

Midwives were called to emergencies by the ambulance service on 40 occasions. These patients were either booked for hospital, but called the ambulance too late, or patients who had received no ante natal care. In all 34 mothers were transferred to hospital in labour or immediately after delivery, and six mothers and babies were nursed at home.

Co-operation with Hospital Services

Co-operation between the domiciliary and hospital midwifery services has continued to be good. The assessment of home conditions in the ante natal period for patients booked for hospital confinement who may be discharged home early to the care of the domiciliary midwife is proving to be a very valuable service.

The midwives can advise the patients regarding their problems, and quite often adverse social conditions are discovered on these visits and other departments of the local authority can be contacted promptly to give help and advice. Patients are often advised to visit their general practitioners, or the hospital concerned if the midwife detects some departure from the normal in the patient's condition.

Six hundred and twelve more requests were made for the assessment of homes during 1970 than in the previous year. The overall number being 3,761. Some of these requests were for patients who might be discharged home early if the pressure on hospital beds was increased, others were for patients who wished for 48 hour discharge from hospital. All patients who request 48 hour discharge are booked by the midwife concerned, and receive at least two visits in the ante natal period. The number of visits during 1970 was 8,371 which was 2,823 more than in the previous year.

Domiciliary midwives have taken blood samples for the Guthrie test for phenylketonuria from all babies born at home and also those discharged early from hospital to their care, this includes babies discharged up to and including the tenth day of life. As the result of this service one positive blood test was found in December and further investigations are being carried out on this child.

Co-operation with General Practitioners

Co-operation with general practitioners is very good, and during the half year from July to December 1970, a record was kept of the number of patients who attended general practitioner ante natal clinics at which a midwife was in attendance.

It was found that 618 attendances were of patients booked for home confinement, and 2,404 attendances were made by patients booked for hospital confinement.

A considerable number of patients booked for hospital were later discharged home early to the care of the midwives who had seen them at the general practitioners' clinics, and it was felt that this was of psychological benefit to the patient concerned.

Midwives were also able to give assistance to the general practitioners by visiting the homes of patients for various reasons. During the latter six months of 1970, 134 visits were made to patients who defaulted from attendance at general practitioners' clinics. Twenty-seven visits were made during this period at the request of general practitioners for various other reasons, 6 of these visits were to patients who had pre-eclamptic toxæmia of pregnancy, these were either mild cases, or patients who were reluctant to be admitted to hospital for treatment, but were later persuaded to do so.

Premature Babies

Fourteen premature babies were born at home, of these five were transferred to hospital and the remaining nine were able to be nursed at home; 721 premature babies born in hospital were later discharged to the care of the specially trained midwives. Among these babies discharged from hospital were 36 sets of twins and one baby which was one of twins.

The midwives caring for premature babies made 157 visits to home deliveries and 3,560 visits to those discharged from hospital. They also visited 276 homes before the babies were discharged, to advise the mothers on conditions suitable for small babies.

Equipment loaned was as follows:—

Hot water bottles and covers	9
Premature baby gowns	3
Premature baby cot	1
Blankets	2

MATERNAL DEATHS

During 1970 six maternal deaths occurred in Liverpool. Two of these were due to rheumatic heart disease. The remaining four were due directly from pregnancy or delivery. One death was due to eclampsia, one followed caesarian section, one after intra cerebral haemorrhage, and one was due to puerperal infection (clostridial).

MIDWIFERY SERVICE – HOSPITAL DISCHARGES

Hospital	No. of days									Premis	Total
	2	3	4	5	6	7	8	9	10 & over		
Mill Road Maternity Hospital	364	146	67	45	118	1,012	110	26	39	228	2,155
Broadgreen Hospital	136	99	39	41	117	525	126	33	30	68	1,214
Sefton General Hospital	161	134	80	118	113	419	267	101	58	138	1,589
Liverpool Maternity Hospital	209	346	326	373	416	333	127	42	43	128	2,343
Fazakerley Hospital	114	110	41	320	531	96	36	18	17	153	1,436
Others	5	3	9	20	19	21	16	3	0	6	102
Total	989	838	562	917	1,314	2,406	682	223	187	721	8,839

REASONS FOR MIDWIVES CALLING IN MEDICAL AID

Mothers		Babies	
Ante partum haemorrhage	4	Sticky Eyes	17
Placenta praevia	1	Septic spots and rashes	4
Urinary infection	2	Jaundice	2
Anaemia	6	Snuffles	3
Post maturity	6	Tetanic spasms	2
Unstable lie	1	Paronychia	2
Premature rupture membranes	6	Vomiting	3
Prolonged labour	13	Thrush	2
Hypertension	3	Grunting respiration	2
Premature labour	3	Cleft palate	2
Foetal distress	7	Cord haemorrhage	2
Epileptic fits	1	Pneumonia	1
Retained placenta	3	Congenital dislocated hips	1
Primary post partum haemorrhage	2	Diarrhoea	4
Secondary post partum haemorrhage	3	Asphyxia neonatorum	2
Positive Wasserman	1	Failure to thrive	1
Perineal repairs	11	Microcephalic	1
Slow healing perineum	6	Haematuria	1
Intra uterine death	3	Cerebral irritation	4
Mastitis	4	Others	3
Uterine infection	6		
Puerperal pyrexia	13		<u>59</u>
Superficial thrombophlebitis	9		
Drug addition (took overdose)	1		
Found dead	1		
Others	14		
	<u>130</u>	Total	189

Of these 118 were for patients discharged from hospital before the 10th day, and 71 were patients delivered at home.

Patients on Doctors' Maternity Medical List	172
Patients not on Doctors' Maternity Medical List	17

MIDWIFERY SERVICE – PATIENTS TRANSFERRED TO HOSPITAL

Mothers		Babies	
Abortions	5	Prematurity	6
Ante partum haemorrhage	9	Malformations	4
Pre eclampsia	6	Rhesus Incompatability	5
Multiple pregnancy	5	A.B.O. Incompatability	1
Unstable lie	6	Asphyxia Neonatorum	1
Malpresentation	14	Hypothermia	1
Multiparity	2	Calcium deficiency	1
Polyhydramnios	2		
Bad obstetrical history	1		19
Contracted pelvis	1		
Placenta praevia	2		
Diabetes Mellitus	1		
Pseudocyesis	1		
Elderly primigravida	1		
Post maturity	17		
Premature rupture membranes	10		
Intra uterine death	1		
Unsuitable home conditions	3		
Premature labour	3		
Prolonged labour	19		
Foetal distress	3		
Primary post partum haemorrhage	4		
Secondary post partum haemorrhage	1		
Retained placenta	2		
Superficial thrombophlebitis	1		
Others	3		
	113	Total	132

MIDWIFERY SERVICE – HOME CONDITIONS 1970

Hospital Requests	Suitable for Early Discharge	No Contact	Not Suitable for Early Discharge
3,761	2,862	272	627

MIDWIFERY SERVICE – WEIGHTS OF PREMATURE BABIES CARED FOR BY SPECIALLY TRAINED MIDWIVES

	Babies born at home and cared for by the Premature Baby Team	Babies born at home and transferred to Hospital	Babies born in hospital and discharged to the care of the Premature Baby Team
Less than 3lbs 4ozs	–	2	–
3lbs 3ozs to 4lbs 6ozs	1	2	2
4lbs 7ozs to 4lbs 15ozs	4	1	19
5lbs to 5lbs 8ozs	3	–	486
5lbs 9ozs and over	1	–	214
Total	9	5	721
Sets of Twins			36
One of Twins			1

Health Visiting Service

The level of immunisation of children remained low despite repeated efforts to increase it by advice to parents and by general health education. Late in 1970 a scheme was devised which may improve the situation, and this is to be implemented in one area of the City early in 1971. If this is successful, it will be extended to the rest of the City.

There was a shortage of qualified staff during the year, and this hampered the work of the section to some extent.

Training

Of the 31 students who took the Health Visitor examination in September, all but one were successful at the first attempt. The one who was referred in one paper only, was successful in December. Five of these students had been sponsored by Liverpool County Borough, and were appointed to the staff in August. In the current year, however, 11 students in training in a school of 30 are sponsored by Liverpool County Borough.

Eight health visitors were sent to Manchester University in November to undertake a Field Work Instructors' Course to enable them to undertake the practical supervision of students.

Staffing

This year brought about great changes in our staffing structure, and the posts of Deputy and Assistant Superintendent Health Visitor were replaced by the post of Senior Nursing Officer (Health Visitors) to assist the newly designated Principal Nursing Officer (Health Visitors). Eleven other new appointments were made within the section, namely Principal Health Visitors (District), to work alongside the post of Principal Social Worker.

More staff were appointed to meet the needs of the family planning service, which now extends to 19 sessions in local authority premises and 5 in the local hospital maternity units each week. The sessions in maternity units take place in the following hospitals: Broadgreen, Fazakerley, Walton, Sefton General and the Women's Hospital.

The staff, therefore, at the end of the year consisted of:—

- 1 Principal Nursing Officer (Health Visitors)
- 1 Senior Nursing Officer (Health Visitors)
- 1 Principal Tutor
- 1 Tutor
- 11 Principal Health Visitors (District)
- 12 Field Work Instructors
- 5 Group Advisers
- 49 Health Visitors, Full Time
- 7 Health Visitors, Part Time
- 7 State Registered Nurses, Full Time
- 9 State Registered Nurses, Part Time
- 22 Family Planning Nurses (Sessional)

Care of Children

Primary visits were made to 10,673 babies who were born during the year, following their discharge from hospital, or from the care of the midwife. These and all other visits were made to ensure that normal healthy progress was being made, and for any deviation from normal to be detected. Certain groups of babies; those born at risk of developing a handicap, and those born with a mental or physical handicap, require particular attention, and more of the health visitors' time. Of necessity these children require more frequent visits, as do their parents, to help them to understand their handicapped child, and to advise them on how best to cope with their particular situation and above all to give them the support they need.

During the year 122,032 effective visits, and 26,353 non-effective visits were paid to children under the age of five years, and their families. Health visitors are trained to detect deviation from normal, and it is at these visits that many problems are discovered and, if they cannot be dealt with by the health visitor, they are referred by her to a specialist in another field.

There was an increase of 2,478 in these references during 1970: 8,252 as against 5,774 in 1969. The referrals were to the following agencies:

	1969	1970
General Practitioners	741	953
Ministry of Social Security	277	333
Medical Social Workers	693	951
Welfare Department	756	1,049
Health Inspectors	775	686
Home Helps	407	476
Children's Department	352	581
Education Welfare	180	220
Mental Health Service	162	232
Occupational Therapist	172	272
Probation Officer	79	190
Moral Welfare	44	69
National Society for the Prevention of Cruelty to Children	130	581
District Nurses and Chiropodists	1,006	1,759

There was, however, a slight decrease in the number of children who were referred for specialist medical advice, as is shown below:

	1969	1970
Mental and physical assessment	39	25
Hearing Tests	43	38
Speech Defects	35	27
Educational Tests	17	29
Eye Defects	281	208
Orthopaedic Defects	179	188
	594	515

Convalescence for mothers and children

Nineteen mothers and sixty-two children were sent away for varying periods of convalescence, and we are grateful to:

West Kirby Children's Convalescent Home
Clumber Lodge
Nazareth House
Knolle Park

for the children they looked after and cared for so admirably.

Phenylketonuria

The testing of blood for this condition continued and the collection of specimens was shared by the hospital and domiciliary midwives and the health visitors. Some urine tests were made and altogether 10,730 babies' blood or urine was tested for this condition. Two positive cases were discovered, and following visits from the health visitors, the parents were reassured and treatment commenced at once by the paediatrician.

The Elderly

The number of elderly men and women being visited by the health visitors increased by over 700. During 1970 3,217 were visited compared with 2,500 in 1969. Five hundred and thirty-six of these aged persons for whom admission to hospital had been requested were referred by the consultant geriatricians, mainly from Newsham General Hospital. Some of these cases did not require immediate admission to hospital, and continue to be nursed at home by implementing the ancillary services. Many of course did require admission but until such time as beds could be offered had to be nursed at home, with the same services made available to the patients and their relatives.

Two hundred and thirty-three elderly people were referred for convalescence, 188 went, 13 were deferred, 3 later refused and 13 were arranged but later cancelled. We are grateful to:

- (a) The House of Providence, Mossley Hill.
- (b) Hildene Clinic, Rhos on Sea. Matron has been most obliging by offering facilities for babies, enabling 19 mothers to go too. She has also accepted cases with a high degree of infirmity.
- (c) Morecambe and Blackpool Hotels. Have given every attention to the needs of the people they have taken and made an appreciable contribution to their recovery to good health.
- (d) Lear Home, West Kirby. Now that alterations have been made to the premises, there is hope that we can make more use of the Home this coming year.

Vaccination and Immunisation

Although there was a slight increase in the number of children vaccinated against measles and smallpox, the acceptance of immunisation against poliomyelitis, diphtheria, whooping cough and tetanus was disappointing, despite the repeated advice given in the homes and at the family health clinics. The following number of immunisations took place at clinics:

Poliomyelitis	18,599 doses
Diphtheria, whooping cough and tetanus	14,464 doses
Smallpox vaccination	2,201 children vaccinated
Measles vaccination	1,620 children immunised

Special Work

Visits to patients suffering from diabetes has continued. The health visitor concerned with this work has visited three hospitals in the city and has visited all patients referred to her by the consultants. She has under her care patients of all ages, and has helped them, and in the case of young children, their parents, to understand their instructions regarding treatment and diet; she has demonstrated the administration of insulin; and advised on diet and the health and welfare of these cases. Through liaison with the Disablement Rehabilitation Officer she has helped many to obtain suitable employment and during the year has had 615 patients under her care.

Another health visitor has continued to work very closely with the neurological unit at Walton Hospital and patients have been visited at home at the request of the consultant. This is time-consuming work, and needs a tremendous amount of sympathy and patience if the co-operation of the patient is to be obtained. The health visitor has visited 250 cases during the year and has done excellent work with them all.

General Liaison

Most hospitals in the city have contact with the local authority through our health visitors. The staff have worked well together and good results are achieved by this happy relationship. More hospital nursing staff are attending Management Courses at the various institutions throughout the city, and part of their studies bring them out to the local authority centres. Here they are shown the activities of the centres and are told about the services available from the local health authority. This has lead to increased co-operation between hospital and local authority staff, and the use of the domiciliary services for the benefit of the community.

Student nurses and pupil midwives are regular visitors to local authority centres, where like the post graduate students, they learn the work undertaken. In addition to this, many organisations have asked for health visitors to speak at evening meetings, and altogether 92 talks have been given during this year.

The Parents' Club at Norris Green Clinic and St. Christopher's Church continues to flourish, and throughout the year many interesting lectures and functions have been arranged to maintain the interest of the members.

V.D. Welfare

Contact and follow-up of women and children continued to be very necessary.

The following is a summary of the work during the year:

	1969	1970
Number of cases written to	402	358
Number of letters despatched	1,280	1,092
Number of cases reporting after receipt of letter	191	182
Number of letters returned (dead letter office)	31	36
Number of cases visited	212	203
Number of visits made	721	848
Number of cases reporting after visiting	139	124
Number of cases promising, but failing to attend	15	9
Number of cases removed or not known at address given	33	44
Number of cases not contacted	20	12
Number of cases refused to attend	3	12
Number of cases transferred to other clinics	2	2

FAMILY HEALTH CLINICS

The following is a summary of the centre activities:

	1969	1970
Total number of centres at which ante natal clinics were held	10	7
Number of clinic sessions held per week (medical)	10	7
Number of cases attending ante natal clinics (doctors' sessions)	1,421	726
Total attendances at ante natal clinics (medical officers' sessions)	1,781	1,144
Total attendances at post natal clinics	23	20
Total number of midwives' ante natal clinics	18	15
Total number of new cases attending midwives' ante natal clinics	495	568
Total attendances at midwives' ante natal clinics	2,879	1,880
Number of centres at which health visitors conducted relaxation and mothercraft classes	16	15
Number of mothers attending mothercraft and relaxation classes	650	495
Number of attendances at above	4,037	2,214
Number of mothers attending who were booked for hospital delivery	625	458
Total number of centres at which child health clinics were held	28	28
Number of clinic sessions held per week	61	58
Number of new cases — under one year	7,964	7,784
— one to five years	928	893
Total number of children who attended	17,066	16,879
Total attendances — under one year	54,191	52,370
— aged 1–2 years	10,560	10,442
— aged 2–5 years	12,495	10,749
Total number of centres at which cytology clinics were held	19	19
Total number of sessions held	473	591
Total number of smears taken at local authority premises	3,444	5,243
Total number of centres at which Family Planning clinics were held	14	20
Total number of sessions per week	16	24
Total number of women who attended first time for advice	1,187	2,693

Family Planning

There has been an expansion of this service, and to meet the need, eight more sessions were opened, five in local health authority centres and three in hospital premises, namely: Fazakerley, Walton, Sefton General. A total of ten thousand two hundred and three visits were paid to family planning sessions during the year. There is an especially heavy demand at Broadgreen Hospital and another session will open in the New Year.

With the opening of more sessions in hospitals, the provision of the intra uterine contraceptive device increased, and an inclusive figure of 444 devices were provided, i.e. the number initially referred, and the number whose method was changed to this device.

In addition to the provision of contraceptives, and advice given at these clinics, tests were also made for the early detection of cervical cancer, and during the year 1,401 smears were taken for examination.

Domiciliary Family Planning

During the year a domiciliary family planning service was started. Visits were paid to women who had failed to attend a clinic after expressing a wish to do so while in hospital. Many of these mothers subsequently attended the clinic, but received their initial advice and assistance at home. Some visits were undertaken at the request of general practitioners, health visitors or social workers and it is hoped that the number of this type of visit will increase.

One hundred and eighty-seven women were visited by the medical officer, and the nurse who operated this service.

Cervical Cytology

Five hundred and ninety-one sessions were held at local authority clinics, 50 at factories and one at an office during the year; and at these sessions a total of 7,095 smears were taken. Added to this, 1,401 smears were taken at the Family Planning Clinics, making a total of 8,496.

These figures are very encouraging when compared with those of 1969, which are as follows:

	1969	1970
Cytology Clinics	2,755	5,243
Family Planning Clinics	689	1,401
Factories	623	1,852
	<hr/>	<hr/>
	4,067	8,496
	<hr/>	<hr/>

Thirteen factories asked for this service compared with five in 1969.

Smear Reports

Number of smears which were technically unsatisfactory and were repeated	13
Number of smears showing some abnormality requiring hospital observation (not thought to be carcinoma in situ)	28
Number of smears showing carcinoma in situ (hospital treatment in all cases)	2
Number of frank carcinoma of cervix	6

Two thousand nine hundred and fourteen women were referred to their own doctors, or to hospital, for other disorders discovered at examination.

The following table shows the number and type of condition for which these patients were referred:

Erosion of Cervix	1,511
Fibroids	20
Cervical polyps	114
Vaginal discharge	454
Vaginitis (mainly senile)	92
Low haemoglobin reading (anaemia)	69
Breast neoplasms (mainly benign)	8
Menstrual disorders	94
Prolapse needing treatment	1
Others	441
	<hr/>
	2,914
	<hr/>

Special Family Advice Facilities

In August of this year a special clinic was started at the Mill Street Domestic Mission, and was open to families who had a special need to come and talk to a doctor about their domestic and matrimonial problems.

Most of the families have been referred by health visitors and social workers, but when the clinic becomes well established there is no doubt families with problems will make their own way to the centre.

REGISTER OF CHILDREN BORN AT RISK

The total number of children under the age of two years on the register at the end of 1970 was 3,200. Of these, 1,502 were born during the year.

HANDICAPPED CHILDREN REGISTER

The register of children born with obvious congenital abnormalities was maintained during 1970. The number of children notified was 256 compared with 264 in 1969.

Central nervous system		34
Ear and Eye		4
Alimentary system		29
Heart and Great vessels		41
Respiratory system		3
Urogenital system		12
Limbs, etc.		92
Other skeletal deformities		3
Skin	} Disorders	-
Muscle		29
Endocrine		-
Mongolism		7
Others not specified		2
		<hr/>
		256
		<hr/>

CHIROPODY SERVICE

During 1970 the Chiropody Service was undertaken by three full-time and twenty-five part-time chiropodists. This was three less part-time than in 1969 and accounts for the reduction in the number of clinic sessions during the year.

	1969	1970
Total number of sessions	5,669	5,275
Total number of clinic sessions	5,527	5,110
Total number of sessions in hostels	141	165
Total number of patients	10,983	11,677
Total number of patients at clinics	9,479	10,005
Total number of domiciliary patients	1,214	1,344
Total number of patients at hostels	290	328
Total number of treatments given	42,129	39,284
Total number of treatments given at clinics	37,919	34,296
Total number of treatments given at home	3,154	3,712
Total number of treatments given at hostels for aged and handicapped persons	1,056	1,276

DISTRICT NURSING SERVICE

The District Nursing Service continued to show an upward trend in the number of domiciliary nursing visits, and this year there has been a marked increase in the number of patients attended. An interesting development in the field of district nursing has been the attachment of a local authority nurse to a group of general practitioners. The function of such a person being the nursing care of the patient within the group practice. The attachment often leads to a better understanding of the role of each member of the group, communications are greatly improved, nursing and medical records are instantly available to both parties, with the resultant improvement in the overall care of the patient. Six pilot attachment schemes were inaugurated in 1970, and have proved of value in assessing the practicability of extending and staffing the general practitioners' groups. It is interesting to note that compared with a similar period prior to attachment there was an average increase in patients of 63.9% and an average increase of visits by 62%. Obviously before further schemes can be undertaken there will have to be a revision of the district nursing establishment, which at present is as follows:

- 1 Principal Nursing Officer (District Nurses)
- 1 Senior Nursing Officer (District Nurses)
- 1 Tutor
- 3 Area Superintendents
- 6 Assistant Area Superintendents
- 70 Qualified District Nurses, 13 of whom work in the following specialities:
 - 3 in the myelomeningocele team;
 - 3 district nurse liaison officers;
 - 6 group attached;
 - 1 clinic duties at the health centre
- 12 State Registered Nurses
- 36 State Enrolled Nurses
- 5 Part-time Nurses
- 2 Full-time Nursing Auxiliaries
- 23 Part-time Nursing Auxiliaries

The district nurse liaison scheme with the hospital services which commenced in 1969, was consolidated and proved to be an extremely worthwhile experiment which has attracted the attention of many other health authorities; advice and information has been sought on a formal and informal basis from many sources.

Visits

In all 414,431 nursing visits were made to 14,672 patients during the year, showing an increase from 1969 of 6,678 visits and 1,822 patients. There was only a slight increase in the number of persons who were 65 years of age and over at the time of their first visit, and for the first time since 1961 there was no further decline in the number of intramuscular injections, the figures showing a slight increase.

Comparable tables of work in the district nursing service are as follows:

	1969	1970
Patients	12,850	14,672
Visits	407,753	414,431
65 years and over at time of first visit	6,504	6,861
Visits to patients over 65 years	217,319	217,674
Late Night Visits	6,668	5,642
Injections as a percentage	27.29%	27.37%

In-Service Training

A course of two weeks (mornings only) was held for all nursing auxiliaries to teach them basic nursing care in the home. The course also proved useful as an orientation to local authority nursing services as a whole and was very warmly received by those participating. Nine district nursing sisters visited three general hospitals for a period of two weeks for refresher courses, and we are grateful to the Liverpool United Group, Walton Hospital and Sefton General Hospital for their co-operation and participation in this new scheme. Three senior nursing officers attended a course in Management Appreciation.

Training for the National Certificate of District Nursing

Sixteen state registered nurses undertook the course leading to the District Nurse Certificate, thirteen of these were staff students and the remaining three were from other authorities; in addition, nine students attended Liverpool for the theoretical part of the syllabus only. Eleven State Enrolled Nurses undertook the course leading to a National Certificate, ten being staff students and one being seconded from another authority.

Visits to the District Nursing Service

Programmes were arranged for 300 hospital student nurses to make rounds of observation with the district nursing sisters to enable them to gain an insight into the domiciliary nursing field.

A special programme was arranged at the request of the Queen's Institute of District Nursing for an officer from Malaysia who was to inaugurate a similar service in Kuala Lumpur to spend two weeks with the district nursing service studying organisation management and training techniques.

DAY NURSERIES

During 1970 a small day nursery was opened for nine physically handicapped children at Dingle House. This brings the total number of local authority day nurseries to 13, providing places for approximately 661 children.

The demand for day nursery places continued to increase and strict priority lists had to be maintained. This is confirmed by the following analysis of day nursery applications; 876 application forms, covering 1,048 children were examined and divided into 8 categories, viz:

1. Social Cases	This is the smallest group. Cases have usually been referred by another agency, e.g. National Society for Prevention of Cruelty to Children, Probation, etc.
2. Medical reasons	Such reasons may relate either to parent or child.
3. Unmarried Mother	Self explanatory – the largest group.
4. Separated or Divorced	Self explanatory.
5. One parent dead	Self explanatory.
6. Father unemployed	In such cases it is normally found that the mother is undertaking work to augment the family income.
7. Father/Mother student	Usually when father is student, mother takes work to augment grant. Mother cannot care for children if she herself is student. In some cases both parents are students.
8. Both parents working	In majority of cases, parents have debts, e.g. after protracted period of father's unemployment, etc.

A number of cases could fall into more than one category, for example, the deserted mother who is also ill. Such cases have been placed in one category only, however, i.e. they have not been counted twice, and the category selected is that which has been deemed to be of prime importance.

The following table shows the distribution of applications by categories, expressed as percentages of the total in descending order of magnitude:

Unmarried Mother	30.2%	(265 cases)
Separated or Divorced	27.9%	(244 cases)
Medical reasons	16.2%	(142 cases)
Both working	9.8%	(86 cases)
Father unemployed	5.8%	(51 cases)
Father/Mother student	4.8%	(42 cases)
One parent dead	2.9%	(25 cases)
Social cases	2.4%	(21 cases)
	100%	(876 cases)

This year three nurseries began to provide their own midday meal from frozen foods in place of a meal from the school meals service. This has been very successful and provided a variety of meals which the children enjoyed.

A new nursery at Bedford Street, to replace Upper Canning Street, is now nearing completion. There are also 30 full time playgroups and 88 part-time playgroups, together with the special nurseries, run by the University, a factory and for children suffering from spina bifida or mentally handicapped. This makes a total of 122 privately run groups.

Immunisation and Vaccination

Diphtheria Immunisation

The number of persons under the age of sixteen receiving a primary course of diphtheria immunisation in 1970 was 7,752, slightly less than the 1969 figure of 7,974.

During 1970, totals of 1,429 primary courses and 4,822 booster doses were given in schools. The primary figure is higher than the previous year's total, but the booster figure is lower.

The number of primary courses carried out in Maternity and Child Health Clinics was 3,836, a decrease on the 1969 figure of 262; in addition 2,487 were performed by general practitioners. The number of booster doses given in Maternity and Child Health Clinics, 740, was slightly less than in 1969, whilst the number given by general practitioners decreased from 1,158 to 1,028 in 1970. These figures, together with 4,822 boosters given in schools, give an overall total of 6,590 booster doses.

The above comments refer to persons under age sixteen. Table B also includes separate figures for age sixteen and over.

Table A

PRIMARY DIPHTHERIA IMMUNISATIONS — 1960-1970

Where immunised	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Maternity and Child Health Clinics	13,091	5,479	5,016	5,263	5,710	6,023	5,843	4,799	2,155	4,098	3,836
Schools	3,926	1,332	1,464	1,362	2,732	1,401	1,818	1,698	1,678	1,253	1,429
General Practitioners	8,929	6,375	3,523	3,399	3,397	3,405	3,189	3,458	3,346	2,623	2,487
Total	25,946	13,186	10,003	10,024	11,839	10,829	10,850	9,955	7,179	7,974	7,752

Table B
DIPHTHERIA IMMUNISATION – 1970

		Year of Birth					Total all ages
		1966-70 (0-4 years)	1962-65 (5-8 years)	1955-61 (9-15 years)	Total (0-15 years)	1954 and before (16 and over)	
Primary Course	Maternity and Child Health Clinics	3,698	136	2	3,836	—	3,836
	General Practitioners	2,359	107	21	2,487	99	2,586
	Schools	51	1,331	47	1,429	—	1,429
	Total	6,108	1,574	70	7,752	99	7,851
Booster Doses	Maternity and Child Health Clinics	127	611	2	740	12	752
	General Practitioners	289	668	71	1,028	22	1,050
	Schools	154	4,588	80	4,822	3	4,825
	Total	570	5,867	153	6,590	37	6,627

Whooping Cough Immunisation

The number of primary courses of whooping cough immunisation in 1970 was 6,077 compared with 6,409 in 1969.

Booster doses numbered 955 as compared with 1,132 in 1969.

Table C
WHOOPIING COUGH IMMUNISATION – 1970

		Year of Birth			
		1966-70 (0-4 years)	1962-65 (5-8 years)	1955-61 (9-15 years)	Total (0-15 years)
Primary Course	Maternity and Child Health Clinics	3,641	54	2	3,697
	General Practitioners	2,285	82	13	2,380
	Total	5,926	136	15	6,077
Booster Doses	Maternity and Child Health Clinics	33	180	1	214
	General Practitioners	255	462	24	741
	Total	288	642	25	955

TETANUS IMMUNISATION

The level of tetanus immunisation in children under sixteen dropped slightly this year, 7,823 primary courses being completed as compared with 7,979 in 1969. In addition, 6,671 booster doses were given, compared with 7,072 in 1969. Separate figures are included in Table D for persons aged sixteen and over.

Table D

TETANUS IMMUNISATION – 1970

		Year of Birth				
		1966-70 (0–4 years)	1962-65 (5–8 years)	1955-61 (9–15 years)	Total (0–15 years)	1954 and before (16 years and over) Total all ages
Primary Course	Maternity and Child Health Clinics	3,699	138	4	3,841	6 3,847
	General Practitioners	2,364	113	77	2,554	258 2,812
	Schools	51	1,330	47	1,428	– 1,428
	Total	6,114	1,581	128	7,823.	264 8,087
Booster Doses	Maternity and Child Health Clinics	127	610	4	741	15 756
	General Practitioners	293	683	132	1,108	137 1,245
	Schools	154	4,587	81	4,822	3 4,825
	Total	574	5,880	217	6,671	155 6,826

Table E

PRIMARY COURSES OF ANTIGEN

Diphtheria/Tetanus and Whooping Cough	6,078
Diphtheria and Tetanus	1,770
Diphtheria	3
Tetanus	239

Table F

SMALLPOX VACCINATION – 1970

Age at date of vaccination	Primary Vaccination			Revaccination			Total	Vaccination at clinic for International Travel	Total
	Maternity and Child Health Clinics	General Practitioners	Total	Maternity and Child Health Clinics	General Practitioners	Total			
0-3 months	15	4	19	-	-	-	19		
4-6 months	6	24	30	-	-	-	30		
7-9 months	6	28	34	-	-	-	34		
10-12 months	16	20	36	-	-	-	36		
1 year	1,287	906	2,193	-	1	1	2,194		
2-4 years	500	527	1,027	4	28	32	1,059		
5-15 years	37	140	177	9	139	148	325		
Total under 16	1,867	1,649	3,516	13	168	181	3,697		
Others	14	313	327	57	(A) 1,183	1,240	1,567		
Total	1,881	1,962	3,843	70	(A) 1,351	1,421	5,264	(B) 5,860	11,124

Notes—(A) The revaccination figures for general practitioners include vaccinations for persons travelling abroad.
(B) The vaccination figures of the vaccination clinic for international travel include persons of all ages, some of whom are not resident in Liverpool. The vast majority are adults.

SMALLPOX VACCINATION

The number of children under sixteen receiving primary smallpox vaccinations during 1970 was 3,516, an improvement on the 1969 figure of 3,385.

Smallpox vaccinations carried out at the clinic held for the purpose of people travelling abroad increased from 5,722 in 1969 to 5,860 in 1970. It is probable that most of the revaccinations carried out by general practitioners were also for this purpose.

POLIOMYELITIS IMMUNISATION

The number of children under sixteen receiving primary courses of poliomyelitis immunisation dropped from 9,275 in 1969 to 7,770. Booster doses increased slightly, from 6,263 in 1969 to 6,549 in 1970.

Table G

POLIOMYELITIS IMMUNISATION – 1970

Completed Primary Courses

Where Immunised	Year of Birth						Others under 16	Total under 16	16 and over	Total all ages
	1970	1969	1968	1967	1966	1962-65				
Maternity and Child Health Clinics	64	2,699	897	255	163	232	32	4,342	63	4,405
General Practitioners	285	1,425	365	77	40	93	30	2,315	112	2,427
Schools	—	—	1	2	21	1,051	38	1,113	—	1,113
Total	349	4,124	1,263	334	224	1,376	100	7,770	175	7,945

Reinforcing Doses

Maternity and Child Health Clinics	—	4	6	9	120	620	22	782	307	1,089
General Practitioners	1	36	100	36	107	659	99	1,038	169	1,207
Schools	—	—	2	—	151	4,490	86	4,729	9	4,738
Total	2	40	108	45	378	5,769	207	6,549	485	7,034

MEASLES IMMUNISATION

During the year 2,692 measles vaccinations were carried out, compared with 2,232 in 1969.

Table H

MEASLES IMMUNISATION – 1970

Where Immunised	Year of Birth						Others under 16	Total
	1970	1969	1968	1967	1966	1962-65		
Maternity and Child Health Clinics	8	547	496	210	139	112	11	1,523
General Practitioners	10	319	333	149	91	96	33	1,031
Schools	—	—	2	2	1	127	6	138
Total	18	866	831	361	231	335	50	2,692

RUBELLA IMMUNISATION

Rubella vaccination was commenced in September 1970 on the advice of the Department of Health and Social Security. It has been made available for the immunisation of girls between their 11th and 14th birthdays, with priority during the first phase of its introduction being given to the older girls, i.e. those aged 13.

The purpose of this vaccination is to protect these girls against rubella before they reach child-bearing age, without attempting to reduce the incidence of natural rubella infection in younger children.

The number of vaccinations completed from September to the end of the year was 1,488.

Table J

RUBELLA IMMUNISATION – 1970

Where Immunised	Year of Birth					1954 and earlier	Total
	1959	1958	1957	1956	1955		
General Practitioners	40	43	67	23	6	4	183
Schools	—	99	842	360	—	4	1,305
Total	40	142	909	383	6	8	1,488

VACCINATIONS FOR INTERNATIONAL TRAVEL

A total of 15,373 doses of vaccine for international travel were given at the clinic which is held every afternoon for the purpose. This compares with 12,622 in 1969.

Table K

VACCINATIONS FOR INTERNATIONAL TRAVEL – 1970

Month	Yellow Fever – Number of Persons	Smallpox – Number of persons vaccinated	T.A.B. – Number of doses	Cholera – Number of doses	Total
January	274	437	81	238	1,030
February	253	565	117	92	1,027
March	191	601	95	96	983
April	258	748	142	108	1,256
May	215	695	116	93	1,119
June	182	472	121	103	878
July	239	592	205	189	1,225
August	226	467	389	387	1,469
September	242	427	989	1,200	2,858
October	235	292	192	697	1,416
November	255	282	124	507	1,168
December	213	282	81	368	944
Totals	2,783	5,860	2,652	4,078	15,373

ANTHRAX IMMUNISATION

Anthrax immunisation is offered by the Health Department to persons at special risk, these being those working in such establishments as tanneries, glue, gelatine and bonemeal factories and woollen mills, who are regularly handling such materials as wool, camel hair, horse hair, hides and hoof and horn meal, particularly those imported from India, Pakistan, the Middle East, China, Africa, Asia, Central and South America.

Table L

ANTHRAX IMMUNISATION

Year	1st Injection	Booster
1966	21	29
1967	23	76
1968	27	22
1969	27	49
1970	22	68

Tuberculosis

Statistics

The number of new cases found during the year decreased to 197, consisting of 169 pulmonary and 28 non-pulmonary cases. These figures represent a reduction of 17 compared with 1969 and give an incidence rate of 0.25 per 1,000 for cases of pulmonary tuberculosis and 0.04 per 1,000 for cases of non-pulmonary tuberculosis.

During the year 181 cases were removed from the Register, consisting of 162 pulmonary and 19 non-pulmonary. These included those who had recovered during the year. The number of cases on the Register at the beginning of the year was 2,367, comprising 2,102 pulmonary and 265 non-pulmonary, and excluding a total of 11 cases where diagnosis had not been completed. This gave a prevalence rate per 1,000 population of 3.15 pulmonary and 0.04 non-pulmonary with an overall tuberculosis prevalence rate of 3.55 per 1,000 at mid-year.

The total number of cases remaining at the end of the year was 1,997, comprising 1,806 pulmonary and 191 non-pulmonary and excluding a total of 13 cases where diagnosis had not been completed. Thus it may be seen that the overall reservoir of cases is continuing to decrease. The number of new cases found as the result of illness was 149 which is 24 less than the previous year. The number of new cases found by examination of apparently healthy persons was 48. This figure represents an increase of 7 compared with that of 1969.

Of the new cases of pulmonary tuberculosis, 105 were male and 64 female, 62.1 per cent of the total being male and 37.9 per cent female. Details of age and sex distribution are given in the statistical section.

The total of 31 tuberculosis deaths in 1970 comprises 24 from pulmonary tuberculosis and 7 from non-pulmonary tuberculosis. These figures represent death rates of 0.036 per 1,000 for pulmonary tuberculosis and 0.010 per 1,000 for non-pulmonary tuberculosis, making an overall rate of 0.046 per 1,000 for all forms.

After Care and Prevention

The number of tuberculosis visitors at the end of the year was thirteen. The policy of concentrating visits on cases of greatest need and on regularly visiting cases where social and housing conditions were affecting the disease was continued throughout the year. In addition, increasing attention is being paid to other lung conditions such as carcinoma of the lung, bronchitis, bronchiectasis, emphysema and post-operative conditions.

Whilst the number of new cases found each year continues to show a decrease from the previous year, there are certain factors which clearly indicate that the eradication of this disease remains a difficult problem which has lost none of its urgency in recent years despite the development of effective anti-tuberculosis drugs and surgical techniques. Notwithstanding the downward trend in incidence rates in the years following the Mass Radiography Campaign in 1959, there still exists a hard nucleus of tuberculosis in the city. The number

of new cases is in the region of 200 each year and amongst these it is disturbing to find that cases of adolescents and young adults found to have positive sputum on diagnosis, are not uncommon. It is clear, therefore, that there can be no relaxation of existing anti-tuberculosis measures in the foreseeable future.

Use of Section 169 of the Public Health Act, 1936

The value of Section 169 has been in the main not in its implementation, but in its existence, lending persuasion in cases who might otherwise refuse hospital treatment.

Although legal action through the Court was not resorted to during the year, the usefulness of this Section as a deterrent was demonstrated in several cases where it was sufficient to acquaint the patients concerned of the existence of these legal powers to ensure their co-operation, thereby favourably influencing the course of their treatment.

B.C.G. Vaccination

During the year B.C.G. vaccination of newborn babies continued in the maternity wards of the Sefton General, Fazakerley, Mill Road, Broadgreen and Liverpool Maternity Hospitals. The total number of babies vaccinated throughout all these units in the city was 301.

Tuberculosis Welfare

Under the Ministry of Social Security Act, 1966, the special scale of allowances for tuberculosis patients was abolished and replaced by a fixed weekly allowance in addition to the Standard Social Security benefits. The Ministry constantly reviews persons in receipt of allowances and requests confirmation that individuals are still receiving treatment or are under the supervision of the Chest Physician. The Health Department co-operates fully and supplies the necessary information.

Rehousing on Medical Grounds

The following table gives details of cases of tuberculosis rehoused on medical grounds during 1970.

	S.P.A.'s	Transfers	Total
Number of applications received	41	104 *	145
Number recommended	32	62 †	94
Number re-housed	17	17	34
Number refused offers	8	2	10
Number still not rehoused	7	43	50

* Includes 13 slum clearance houses.
† Includes 2 cases recommended under Slum Clearance.

Venereal Disease

INCIDENCE OF SYPHILIS

Over the past three years, there has been a sustained decrease in both male and female cases. Statistics over recent years, along with the peak-year 1946 for comparison are as follows:

Age in years	1946		1964		1965		1966		1967		1968		1969		1970	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
15–17	9	15	2	1	2	—	1	—	4	4	1	1	—	2	—	1
18–20	40	71	18	5	12	3	9	5	12	12	8	5	8	6	2	2
21–25	177	111	36	6	42	14	20	6	18	14	16	7	16	2	5	3
26–30	149	57	20	3	23	2	15	3	20	3	14	8	8	1	5	2
31–35	136	41	9	—	14	1	10	4	12	6	5	1	8	4	4	—
36–40	73	23	3	1	7	—	7	3	11	4	4	1	3	—	—	—
41–45	32	5	5	1	5	1	5	3	16	4	5	2	1	—	2	—
46 and over	39	6	3	—	8	—	7	—	15	4	5	—	3	2	4	1
Total	655	331	96	17	113	21	74	24	108	51	58	25	47	17	22	9
Total M & F	986		113		134		98		159		83		64		31	

INCIDENCE OF GONORRHOEA

This condition in contrast to the above has maintained a yearly increase over the past five years.

Re-infection in males occurred in 177 instances —
1,589 infections — 1,412 individuals.

Re-infection in females occurred in 39 instances —
602 infections — 563 individuals.

Statistics over recent years are as follows:

Age in years	1946		1964		1965		1966		1967		1968		1969		1970	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	—	4	—	—	—	—	—	1	1	1	1	2	2	1	1	—
15–17	21	17	49	43	23	21	26	45	27	56	24	55	28	60	36	6
18–20	262	79	228	129	143	94	164	126	176	120	198	140	192	131	242	15
21–25	978	141	541	140	418	149	400	157	392	148	428	168	435	198	480	19
26–30	870	88	377	66	281	59	334	74	383	109	324	82	391	112	363	11
31–35	513	53	170	29	130	19	157	28	123	24	181	41	172	38	244	4
36–40	259	29	91	8	70	10	90	21	89	22	105	20	93	15	97	2
41–45	135	5	70	2	51	7	48	8	64	3	50	8	58	5	56	1
46 and over	74	6	43	5	35	6	59	3	48	5	43	4	48	7	61	5
Totals	3,112	422	1,569	422	1,151	365	1,278	463	1,303	488	1,354	520	1,419	567	1,589	602

CONTACT TRACING

The following table indicates results obtained:

	Male	Female	Total
No. of reports of alleged source of infection	9	59	68
No. of individual persons	9	54	63
No. of cases traced but interviews not effected	5	22	27
	1	2	3
No. of cases reporting at Clinic following interviews	5	20	25
No. of reports passed to other authority	—	1	1
No. of cases untraced (due mainly to lack of information)	3	29	32
No. of visits made — home, lodging, club, etc.	16	97	113

RESULTS OF HOME VISITS

	Male	Female	Total
No. of cases visited	225	407	632
No. of visits made	534	1,018	1,552
No. of cases attending following visits	93	209	302
No. of cases promising to attend but failing to	27	23	50
No. of cases removed or not known at addresses given	43	93	136
No. of cases not contacted, no access, away from home etc.	36	47	83
No. of cases who refused to re-attend	9	30	39
No. of cases removed and transferred for follow-up	17	5	22

RESPONSE TO LETTERS

	Male	Female	Total
No. of cases written to	765	1,607	2,372
No. of letters despatched	986	3,359	4,345
No. of cases reporting in response	386	896	1,282
No of letters returned by Dead Letter Office	108	58	166
No. of cases traced and transferred	14	8	22

Cases referred by Maternity Units

Twelve cases were referred for further investigation and for treatment. Findings were as follows:

Late latent syphilis	4
Gonorrhoea	3
Non-venereal	5
	—
Total	12
	—

Infantile Incidence

No neo-natal syphilis came to notice.

There were four cases of ophthalmia neonatorum, all made rapid recovery. In no instance had the mother come to notice at a Special Clinic during her pregnancy.

Mental Health Service

Introduction

During this transitional year the mental health service has continued to retain its separate identity. Experienced mental welfare officers, in short supply as last year, carried out their twofold duty of helping mentally disordered people by visits and advice and ensuring that those needing admission to hospital under the Mental Health Act procedure are attended to promptly. Training centres, hostels and workshop continued their function of helping the mentally handicapped to achieve as full and happy a life as possible. Preparations were made for transfer of the children's training centres to the Education Department in 1971, and some re-thinking about the organisation of adult centres became necessary in consequence.

One gap in the service — the lack of accommodation for mentally ill people not needing hospital treatment but unable to live at home — remained unfilled but the department's first hostel for this purpose was almost completed at the end of the year.

Visiting Work

The number of effective visits paid to mentally disordered people has been fairly constant over the last few years. The total for 1970 was 17,996. There were 2,008 new references. The quality and value of the work are affected not only by the experience of the staff but by the continuity of the service given and unfortunately the disruptive influence of staff leaving after establishing good relationships with their clients and of posts being vacant for long periods have again been evident.

A vast amount of good work has nevertheless been done and officers should look to the future confidently with the increased opportunities it will afford, in the district organisation, for integration with other social services.

Establishments

There was no change in the number or capacity of the establishments run for the benefit of mentally disordered people, as follows:

ESTABLISHMENTS FOR MENTALLY SUB-NORMAL

Childrens Training Centres

Princes Road	80 places
Dovecot, Garston	60 places each
Cherry, Laburnum (New Hall Centres)	60 places each

Special Centre for additional handicapped children and adults

Oak House (New Hall)	40 places (capacity 60)
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Adult Centres

Poplar, Hawthorne, Lilac (New Hall)	60 places each
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Sheltered Workshop

New Hall	300 places
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Hostels for adults

New Hall	148 places
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Occupational and Social Centre, Johnson Street

30 places

The staff of children's centres expressed concern about their future under the Education Department. As regards qualified staff the terms of transfer appear to be favourable but unqualified staff were still in doubt about their position at the end of the year. Staff at adult centres and workshop, who remain with the Personal Health and Social Services Department, were concerned that the parities or differentials in salaries and conditions which had been evolved over a number of years between them and their colleagues in children's centres were changing, to their disadvantage.

The transfer of the buildings forming part of the New Hall complex also presents problems of possible dual control of services on the estate.

Plans for the future recognise that provision for mentally ill people has lagged behind that for the mentally sub-normal and hostels and therapy centres, as well as intensified visiting services, are envisaged. The largest plan which is now nearing the building stage, is, however, concerned with the mentally sub-normal – the Netherly adult centre and workshop project – which will serve the south of the city and provide additional places for nearly 200 adults.

The following are brief notes on each of the present establishments:

1. Childrens training centres

(a) Dovecot (Stonefield Road)

This rather inadequate building, which lacks any outdoor recreational space, has been well attended since its opening in 1950 and had an average daily attendance of 45 in 1971.

(b) Princes Road

This was the only centre in existence in Liverpool when the Health Department started its mental health service. Much thought has been given over the years to its improvement but it has been impossible entirely to overcome its basic defects as an old three-storey house, without grounds, on a busy main avenue and its replacement has been planned. A feature of the year was the interest taken in the weekly sewing lessons. Average daily attendance was 55.

(c) Garston (St. Mary's Road)

Originally a court of petty sessions, later a poor-law office, then a church hall, it has served reasonably well as a training centre but has the same lack of functional fitness as Princes Road and Dovecot. The Netherly project referred to above originally contained provision for a new children's centre as replacement for Garston, but of course its future now devolves on the Education Department. Average daily attendance 44.

(d) New Hall centres – Cherry Tree and Laburnum.

In contrast to the above three centres the New Hall buildings, dating back to 1878, serve their present purpose admirably. They are of course part of the estate acquired by the Health Department in 1959 and, in common with all the other buildings there, have been extensively altered and renovated. Cherry Tree, catering for the younger children, had on average attendances of 42, Laburnum had 48.

2. Special centre for people with additional handicaps

Oak House, at New Hall, was opened as a temporary measure, primarily for mentally sub-normal children with additional handicaps but taking a few similar adults, pending the opening of the special training centre adapted from the old sick bay at New Hall.

The transfer of children to the Education Department next year may affect the original plan for this building, viz. to use it for both children and adults. In the meantime the work done at Oak House has demonstrated the need for a properly equipped and larger centre all on ground level. It has been possible to effect great improvements there under less than ideal conditions and the opening of the new centre next year is looked forward to with interest. The Regional Hospital Board is arranging for nursing services to be available and it is hoped that the project will result in a decreased demand for hospital care.

3. Adult training centres

All training of mentally sub-normal adults is centered at New Hall, either at the workshop (see below) or the two training centres. New entrants spend a period of assessment at both centres and workshop before it is decided which is the appropriate atmosphere for them.

Some note should be made here of the efforts made to widen the social horizons of the severely sub-normal under the department's care — children as well as adults. Projects are carried out which involve them in civic and cultural matters — visits to Town Hall, docks, fire-stations, markets, art gallery, museum, cathedrals, zoo etc. are followed up by talks and questions. Parents have commented on the stimulating effect this has had on the atmosphere at home and in fact one confessed to the visiting officer that “our Johnny can tell you more about Liverpool than I can myself”!

4. Workshop, New Hall

This is the only purpose-built establishment the service has. Opened in 1964 for 300 people it has been fully used and during 1970 an adjacent building had to be opened to avoid overcrowding. It was possible to provide work over the whole year and a record total of just under £12,000 was received. All of this was divided among the workers on the now well established points system.

Most of the work listed last year continued, including the use of fly presses and other machinery. A new contract involved the soldering of tin containers using electric soldering irons and an interesting short-term job was that of riveting of harnesses for the use of employees of the Post Office who have to climb telephone poles in the course of their duties.

The workshop is obviously not a profit-making concern. The amount received for jobs done is divided without deductions and, even so, workers receive on average less than £1 per week over the whole year. This is thus an addition to their Social Security allowance, not a wage. Meals and transport are provided free of charge.

But if the cost to the community is high so are the benefits. It is safe to say that in the absence of this facility most of the 300 would spend their time aimlessly, some hardly leaving their homes, some exploited by smarter companions and getting into trouble — and none being able to feel the sense of community and purpose that the workshop has been able to give.

It is very wrong to think that workshops such as New Hall only succeed if they produce a large-scale exodus of workers to open industry. To project an individual so greatly handicapped into an industrial atmosphere can do more harm than good; not only initial sympathy is needed on the part of management and workmates but continuing understanding and tolerance. Eight people were, in fact, found jobs during the year and the fact that all have remained in employment up to now exemplifies the care taken before any placements are made.

If few are likely to be successful or happy on their own this is not to say that the present position is ideal. Future development, it is suggested, should lie in the direction of group employment. Industrial concerns may be able to absorb groups of such workers, accompanied, perhaps, by an employee of the local authority and greatly increased efforts need to be made to make more widely known the high potential value of people whose enthusiasm, good humour, and willingness to work can often compensate for their innate lack of intelligence. Much excellent groundwork has been done and a vast expansion of the community's interest in this type of adult should be fostered in the new Liverpool organisation.

5. New Hall hostels

There was little change in the population of these hostels and it is well to recognise that for most of the residents this is their permanent home. A few places are left vacant for short-term care and people spent short periods during the year while relatives went on holiday or during periods of family stress.

At the end of the year there were 109 residents living in the hostels of whom 79 were attending the sheltered workshop, 24 were attending the adult training centres, 4 were in full-time outside employment, and 2 were unfit for attendance even at a training centre.

The year's activities followed the usual pattern, with a week's holiday in a hotel at St. Anne's, plenty of recreation in badminton, tennis and swimming, and dances at Christmas festivities.

Laundry

Residents also find much interest in working in the laundry, which was re-opened last year after modernisation.

6. Mental health Centre, Johnson Street

This small centre forms part of the building which has been the headquarters of the mental health service; medical advice and the services of mental welfare officers are thus readily available to the occupational therapists who run the centre. A daily attendance of about thirty, which is as much as the centre can hold, has been well kept up since it opened nine years ago. There were 38 new attenders, 18 of whom continued attendance for less than two months.

Co-operation with voluntary bodies

One of the objects of the new organisation will be to enlist the co-operation of all voluntary effort, whether by societies or individuals. It is hoped that, within the smaller framework of each district, co-operation can be enlarged and made more flexible.

The part played in the social services by voluntary effort, which some thought might be eclipsed when the national health service came into being, is now recognised to be an essential one. Unhampered by the restrictions placed on official organisations such bodies as the National Association for Mentally Handicapped Children, the Richmond Fellowship are doing pioneering work of which the public bodies do well to take advantage.

In Liverpool the Association for Mentally Handicapped Children was as active as in previous years. Their nursery centre, Mencap House, is financially supported by the Corporation and Orchard Dene short-stay home (which this society started) was again used though the demand was less than in previous years. 15 children sponsored by the department spent periods there. Other local societies have again helped the mental welfare officer and the thanks of the service are due not only to societies directly connected with mental health such as Neurotics Nomine, but to those dealing with family problems of all kinds.

Co-operation with hospitals

The services of hospitals and local health authorities should be and largely are complementary. The mental health service depends for its knowledge of mentally ill people in need of community care on the good-will of the discharging hospital as well as of the discharged patient. The attitude of the hospital staff can in fact determine the patient's own attitude to the offer of continuing care when he is discharged.

In this area a successful scheme has been developed by which a senior officer is in daily contact with Rainhill Hospital and to a lesser extent with the Psychiatric unit at Sefton General Hospital.

Much benefit has also accrued from the personal contact built up by the Principal Medical Officer (Mental Health) as a member of committees at these hospitals and of the Psychiatric Services Co-ordinating Committee.

An interesting development of recent years has been the reduction in the demand for hospital places for the mentally handicapped. The days seem to have gone, happily, when the City Council felt impelled to send a deputation to the Minister of Health to protest against the size of the waiting list.

Increased community facilities have of course had much to do with this change.

There are still, however, 20 in the top urgency category on the waiting list at present, five of whom have been on the list over three years, four between two and three years, and five between one and two years. In addition there are 38 on the list with lesser degrees of urgency. Only 14 vacancies were obtained in 1970 for people on the waiting list.

Statutory work of mental welfare officers

The organisation of their work under the new district administration presents some problems and an analysis of the existing system may be useful.

Mentally ill people can be, and the great majority are, admitted to hospital informally and are under no compulsion to remain there. As an example at

the end of the year the population of the two chief hospitals admitting Liverpool patients was as follows:

	Informal patients	Patients under some form of compulsory stay
Rainhill Hospital	1,931	101
Sefton ,,	164	11

The number of compulsory admissions has been going down over the last few years but the importance of this aspect of the mental welfare officer's work must not be underestimated. The days are gone when he had to carry out an order made by a Justice of the Peace or, in emergency, act on his own but under the Mental Health Act he is still the man who (in the absence of a relative willing to act) enters the patient's home and makes the decision (based on the medical recommendation which is now essential) whether to take the patient into hospital.

This work is done by officers on roster, two during the day time, one at night and weekend. The Superintendent Mental Welfare Officer or his deputy receive most references during the daytime and guides the officers on roster as to action, but at nights and weekends the "duty" officer bears the responsibility of dealing with the doctor or other enquirer.

The system has worked well and the service has the goodwill of the 400 or so general practitioners in the city (who in 1970 claimed fees in respect of 466 patients examined and were paid a total of £2,400).

Requests for the M.W.O 's services were received as follows:

Referrals for action

Mental Illness	1,189
Mental subnormality	26
	<hr/>
Total	1,215
	<hr/>

The action taken was as follows:

Mental Illness

Admitted to hospital	Sec. 29 (emergency)	227
,, ,, ,,	Sec. 25	287
,, ,, ,,	Sec. 26	3
,, ,, ,,	Sec. 60 (Court)	18
,, ,, ,,	Sec. 65 (Court)	1
,, ,, ,,	informally	553
		<hr/>
	Total	1,189
		<hr/>

Mental Subnormality

Admitted to hospital	Sec. 26	1
,, ,, ,,	Sec. 60 (Court)	9
,, ,, ,,	informally	16
		<hr/>
		26
		<hr/>

From the above figures it can be seen that many informal admissions were arranged even though the doctors may have completed a recommendation for

compulsory action. This exemplifies the M.W.O.'s discretionary powers; he must have a medical recommendation but is able to assess the position at a later time and advise the doctor if he considers admission can reasonably be arranged without formality. The close links the service has developed with the hospital psychiatrists often facilitate such admissions.

The M.W.O. has been called "he" for convenience but of course the female officers carry out the whole of the duties, including night duty.

References at night are routed through the Ambulance Department and the officer has a radio enabling him to receive and transmit messages even when he is "out on a case".

The responsibility of deciding whether to take away the liberty of a patient in his own interest or that of the community has marked out the mental welfare officer from other social workers. In the case of officers dealing with old people and children who may have somewhat similar duties the decision is processed through the committee or magistrate.

The new organisation has the pressing task of adapting this work to the district framework without forfeiting the high reputation for promptness, efficiency and humanity which has been gained in the past.

Ambulance Service

Case Load of Patients

The total number of patients carried through the year amounted to 255,122, an increase of 2,886. The majority of the increase was mainly day centre patients. Attempts were made to increase efficiency and the concentrated efforts of the control staff and hospital transport officers have once more shown the demand for ambulance transport can be controlled. However, to attempt to keep up this pressure is a considerable strain and if the demand on the service is to be controlled and maintained at a level that allows the ambulance service to provide an efficient service in conjunction with the hospital appointment systems, Hospital Management Committees will need to take a more active part.

The ambulance vehicles travelled 960,561 miles using 65,229 gallons of fuel and 940 gallons of oil.

Ambulance Training and Equipment

Various circulars dealing with ambulance training and equipment were issued throughout 1970 by the Ambulance Service Advisory Council and the Local Government Training Board. The main features of these circulars included hospital training for ambulance personnel and also increased training for ambulance drivers between 2-5 year's service. The training of ambulance personnel requires new entrants into the service to undergo a six weeks' training course as soon as possible after entry followed by a period of 1 week on the completion of 1 year's service. Staff between 2-5 years' service are required to undergo 2 weeks' training once every two years, on completion of the training a proficiency certificate is awarded by the Department of Health and Social Security qualifying the man for all aspects of ambulance work.

This training has brought increased pressure on the service and consideration is being given to increase the number of training staff. In addition, several circulars have been received advocating standardisation of equipment. The main items on which recommendation has been made are:

- Stretcher gear and stretchers
- Other basic equipment for ambulance vehicles
- Rescue equipment
- Major accident equipment
- Equipment for journeys by rail and air
- Uniform and insignia
- Radiation risk equipment
- Equipment for infectious disease
- Control equipment
- Radio equipment
- Portable incubators
- Vehicles
- Contents of first aid satchels and dressing

Radio Equipment

The G.P.O. Radio Service Department informed all ambulance authorities that the 12.5 KHZ channel spacing would operate from 1st January 1973.

Subsequently, the Ministry of Post and Telecommunications recommended that all ambulance services should operate the same radio frequency permitting greater flexibility in operations and that a national frequency be allocated to cope for any major accident or "May Day" requirement. One important factor is the concept of each authority's mobile being switchable to the control frequency of all neighbouring authorities. The co-operational arrangement envisages all ambulance authorities to work on the same radio system i.e. Frequency Modulation High Band.

The objects being:

- (a) an ambulance moving into the territory of a neighbouring authority would be able to communicate with the ambulance control of that authority,
- (b) an ambulance containing an injured patient could have two-way communication with a doctor in the hospital to which the patient is being conveyed,
- (c) at nights/weekends when radio traffic is reduced to relatively few emergency calls, one control could take over for two or three controls enabling the others to be closed,
- (d) ambulances provided by several neighbouring local health authorities at the scene of a major accident (e.g. rail crash, aeroplane crash) could work on one channel.

Each mobile ambulance would be equipped with a multi-switchable set of not less than six channels and radio communication would be available between the ambulance crew and hospital staff.

Cadet Training

Twelve cadets were recruited in 1969 and eight completed the course in October 1970, after passing the examinations of the Institute of Certified Ambulance Personnel, and becoming fully operational. Since then ten cadets were recruited in October 1970.

Staff

- 1 Chief Ambulance Officer
- 1 Assistant Ambulance Officer
- 1 Senior Controller
- 1 Training Officer
- 4 Controllers
- 4 Assistant Controllers
- 2 Telephone Operators
- 8 Hospital Transport Officers
- 3 Station Officers
- 2 Clerks
- 1 Copy Typist
- 1 Storekeeper
- 12 Shift Leaders
- 120 Ambulancemen
- 12 Cadets
- 8 Labourers
- 2 Apprentice Mechanics
- 7 Mechanics
- 1 Foreman Mechanic

COMPARATIVE STATISTICS FOR 1969-70

	1969	1970
Petrol Ambulances	14.82 m.p.g.	14.8 m.p.g.
Dual-purpose Ambulances	14.8 m.p.g.	14.05 m.p.g.
Sitting-case Ambulances	17.5 m.p.g.	17.0 m.p.g.
Vehicle Mileage	946,698	960,561
Fuel – Petrol	59,780 gallons	65,229 gallons
– Oil	771 gallons	940.5 gallons

AVERAGE MILEAGE FOR THE FLEET WAS AS FOLLOWS:

	Average Annual Mileage		Percentage Increase/Decrease on 1969
	1969	1970*	
Ambulance – Petrol	16,740	18,503	+10%
Sitting-case Ambulances	13,051	12,933	–0.9%
Sitting-case Cars	5,455	5,924	+8.6%

FUEL CONSUMPTION

Stretcher-case Ambulances	Petrol	14.8 miles per gallon
Sitting-case Ambulances	Petrol	14.05 „ „ „
Sitting-case Cars	Petrol	17.00 „ „ „

The total petrol consumption during 1970 increased by 5,449 gallons or 8.9 per cent to 65,229 gallons.

AGE OF VEHICLES IN YEARS – 1970

Ambulances	Under 1	1–	2–	3–	4–	5–	6–	7–
	7	8	16	7	14	11	–	–

EMERGENCY CALLS – 1970

Month	A	B	C
	Accident/ Emergency calls	False calls with good intent	Malicious false calls
January	2,244	198	16
February	1,804	119	11
March	1,968	139	18
April	1,890	140	16
May	2,104	148	13
June	2,042	130	13
July	2,056	150	15
August	2,146	171	23
September	2,111	176	22
October	2,212	172	26
November	2,108	146	22
December	2,339	166	28
Total	25,024	1,855	223

(1) The totals shown in columns (B) and (C) are to be taken as being included in column (A) but are shown thus for statistical purposes.

INFECTIOUS PATIENTS – 1970

Month	Admission	Hospital to Hospital Transfers	Total	Type	
				Sitting Cases	Ambulance Cases
January	69	19	88	62	26
February	74	18	92	62	30
March	101	26	127	81	46
April	97	19	116	64	52
May	103	16	119	77	42
June	104	13	117	65	52
July	105	19	124	70	54
August	103	17	120	70	50
September	117	19	136	88	48
October	103	22	125	67	58
November	81	17	98	47	51
December	105	20	125	35	90
Total	1,162	225	1,387	788	599

PATIENT REMOVALS -- 1970

Number of Persons Carried	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Non-Infectious --													
Out-patients	14,234	15,284	15,484	16,821	16,151	16,976	16,750	14,120	15,684	16,074	15,995	14,934	188,507
Hospital Admissions/Discharges	3,216	2,669	2,786	2,755	2,639	2,608	2,651	2,310	2,605	2,675	2,598	2,795	32,307
Inter-Hospital Transfers	593	570	600	591	544	680	578	556	587	544	612	469	6,924
Infectious --													
Hospital Admissions/Discharges	69	74	101	97	103	104	105	103	117	103	81	105	1,162
Inter-Hospital Transfers	19	18	26	19	16	13	19	17	19	22	17	20	225
Accident / Emergency													
Other Persons	285	453	73	50	51	155	64	32	16	376	442	39	2,036
Totals 1970													
	20,556	20,805	20,970	22,126	21,528	22,508	22,141	19,204	21,010	21,902	21,767	20,605	255,122
Totals 1969													
	21,698	19,982	22,494	20,628	21,974	21,859	21,860	18,193	19,904	22,538	20,504	20,602	252,236

MILEAGE, PETROL, DIESEL AND OIL PERFORMANCE – 1970

Ambulance	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Petrol													
Mileage	49,278	45,012	49,268	48,377	47,459	51,216	50,415	46,061	49,142	52,108	50,923	52,833	592,092
Fuel—Gallons	3,470	3,364	3,519 (8)	3,371	3,214	3,494 (9)	3,325 (5)	2,926 (26)	3,299	3,578	3,587	3,641 (9)	40,788
Oil—Quarts	171	165	183½	209	174½	184½	208	160	191	192½	136	188	2,163 (57)
Dual-Purpose													
Mileage	29,390	27,577	28,680	31,167	28,080	28,609	30,431	27,451	30,550	30,003	28,357	26,057	346,352
Fuel—Gallons	2,053	2,067	1,962	2,211	1,916	1,916	2,047	1,832	2,032	2,051	1,983	1,259	23,329
Oil—Quarts	109	106	106	137	126½	130½	171	123½	168	154	103½	126½	1,561½
Sitting Case													
Mileage	929	1,474	1,446	1,621	1,409	1,548	1,625	1,611	1,132	1,725	1,808	1,444	17,772
Fuel—Gallons	38	92	91	104	73	101	97 (9)	60	61	116	114	99	1,046 (9)
Oil—Quarts	—	1	—	17	½	1½	1	—	2	2½	6½	5½	37½

(Oil figures in quarts). Figures in brackets show fuel obtained from other local authorities.

ANALYSIS

	1969	1970	
	Fuel M.P.G.	Fuel M.P.G.	Oil M.P.P.
Petrol Ambulances	14.82	14.8	136.9
Dual-purpose Ambulances	14.8	14.05	110.9
Sitting-case Ambulances	17.5	17.00	237
		Vehicle mileage	960,561 miles
		Fuel – Petrol	65,229 gallons
		Oil	940½ gallons

Home Help Service

Service was provided for 4,706 families during 1970 with an average number of 620 home helps. Of this number, 4,273 were persons aged 65 years or over

Mention has been made in previous reports of the change in emphasis from that of the young family to the aged individual and this is demonstrated again by the above figures.

Another notable feature of the service in 1970 was the small number of short-term cases — 82 only. The remaining 4,624 in number were accepted as permanent recipients with the provision of service ceasing with changes in circumstances only.

Each home help cared for one or more of her patients for at least 2 hours every day, and as the number of severely handicapped persons increased, so the attention paid to the semi-active pensioners was reduced.

Home Helps

Recruitment of home helps improved during the year and the number of staff increased from 604 to 655. This was partially due to the changed conditions of service which attracted more applicants to the Home Help Service. During 1970 the numbers recruited were 270, and 224 left for the following reasons:

Medically unfit	17
Retirement	3
Resignations	157
Removal of home	8
Other employment	10
Unsuitable	29

Occupational Therapy

The aims of the Occupational Therapy Service are to help handicapped people to regain maximum recovery of lost function whenever possible either through exercise and treatment, or through the provision of aids, and possibly adaptations to existing premises or through rehousing to enable them to retain their independence for as long as possible. Consideration is given not only to physical independence but also to their needs for employment and their ability to engage in social activities.

In the past the Domiciliary Occupational Therapy Service of the Liverpool Corporation has been held in high regard throughout the United Kingdom and even further afield. The Head Occupational Therapist was asked to write a definitive article in the recognised textbook for Occupational Therapy students and has also been asked to act in a consultative capacity for the World Federation of Occupational Therapists on Domiciliary Occupational Therapy. However, through no fault of her own this service has been gradually eroded.

1. No increase in the establishment of Domiciliary Occupational Therapists has been permitted, with the result that the service to handicapped in their homes is restricted to the bare minimum. It is not even possible to allocate one Domiciliary Occupational Therapist to each area office.
2. Due to lack of transport for handicapped persons it has been almost impossible to provide assessment and treatment for patients in the Rehabilitation Units. Eventually, the waiting list of patients requiring admission to the units became so long, that the Domiciliary Occupational Therapists felt it to be unfair to raise people's hopes by even suggesting the possibility of attending. As a result of this transport problem the day units have been grossly underoccupied, resulting in frustration on the part of the Occupational Therapists at the units and valuable equipment and facilities lying unused.
3. Long delays between the placing of the order for specialised equipment for patients e.g. high chairs, bath aids etc., and their arrival with the therapists, often leads to unnecessary deterioration and difficulties for the handicapped and their families. Shortage of money for these aids and for the payment for structural alterations is another of the frustrations in the work of the therapists, who are frequently put in the position of having to try to explain the delays to irate clients, clients' relatives, city councillors, general practitioners etc. With the passing of the Chronically Sick and Disabled Persons Act this pressure is likely to become more insistent and it is felt that there should be no further delay in improving the service along the lines indicated. At the time of writing this report, any account of the service is a long apologia. Facilities exist for a first-class service to the handicapped of Liverpool, but for the reasons indicated they are becoming atrophied.

The number of staff in this service has remained constant at 16 for the past 3 years. The staff are distributed as follows. The Head Occupational Therapist and her Deputy are responsible for the administration and organisation of the domiciliary service and four rehabilitation units and also carry case loads of between 500–600 patients each. Two other domiciliary therapists are responsible for visiting approximately another 1,580 patients, one of these

was only working four days per week during most of 1970, while another senior therapist has a domiciliary case load of 80 children and approximately 160 other patients and is also responsible for a children's rehabilitation centre on two days per week and an adult hemiplegic clinic on another day. Three other senior therapists are responsible for rehabilitation units at Rumney Road, Longmoor Lane and Johnson Street and have a staff of seven therapists and a technician to cover the three units.

The domiciliary staff visit all patients newly referred to the section, firstly to assess the overall needs of the patients and with a view to assisting the patients and relatives to live as normal a life as possible. This may necessitate teaching a patient new ways of performing an activity such as getting in and out of bed and moving from bed to chair, working, dressing, feeding, walking etc. The occupational therapist is trained to deal with the handicapped person as a whole human being and to consider not only how the handicap affects the disabled person but also how it affects his position in the family, his work and his social life. The handicapped person must first be encouraged to overcome the handicap as much as possible and to utilise whatever ability is left to the maximum potential.

It will be appreciated, that with domiciliary therapists having such large case loads, they are only able to deal with the immediate problems and are unable to follow cases up in the manner which would be most beneficial to the patient. This is unfortunate for the handicapped person and frustrating to the staff.

During 1970 the domiciliary therapists made a total of 4,929 visits. 818 new cases were referred to the section making a total of 2,641 on the books.

With the reorganisation of the Department into eleven districts, it was decided that the occupational therapy records should be separated into the same eleven areas, but that until more domiciliary therapists were appointed each one would have to be responsible for a number of districts. The numbers of handicapped people known to the section are listed below against the districts and it is interesting to note the wide variation in numbers in the districts.

District	A	138
„	B	107
„	C	193
„	D	87
„	E	151
„	F	160
„	G	562
„	H	228
„	I	119
„	J	268
„	K	128

Plus approximately another 500 which have not yet been sorted into areas.

New Medical Officer

One of the highlights of the year was the appointment of a Medical Officer for Rehabilitation. Dr. H. P. Jones, F.R.C.S., D.Phys. Med., visits the three occupational therapy units dealing with the physically handicapped and advises on treatment. He has been instrumental in getting additional treatment for a number of handicapped people, where the condition had been accepted as

irreversible. Another Medical Officer does occasional visits with domiciliary therapists, especially when they have a patient who they think will benefit from attendance at a rehabilitation unit.

Dr. Jones had anticipated that he would be able to assist patients who needed new appliances, such as calipers, by making recommendations directly to the Ministry of Health as he had done previously when working in hospital. This would have been beneficial to the patients, as he sees them more frequently than a hospital consultant does and would have saved time and expense in arrangements having to be made for the patient to attend the outpatients department at a hospital to see a consultant.

Move

In June the Head Occupational Therapist was asked to find alternative accommodation for the domiciliary staff, who had always previously been in Hatton Garden. The section already had a small office in Balliol House, Mill Bank, Tuebrook, Liverpool, and as this was fairly central for the domiciliary therapists, all work from the office moved out there temporarily. This room proved too small on days when all the staff and students were in and when a larger room in the building became vacant a further move was made. A store room was necessary for aids and equipment and as an emergency this was stored in a garage at the rear of the house. This proved to be extremely damp on wet days and eventually it was possible to move it into a ground floor room under the office. This room is not fit for human habitation, but at least the articles can be kept dry.

The move away from headquarters has meant extra travelling for the Head Occupational Therapist, who frequently had to visit Hatton Garden for administrative purposes and it is hoped that an office will again be made available for her in the near future.

World Congress

During the year one of the staff attended an International Congress of the World Federation of Occupational Therapists in Zurich. This proved to be a very interesting and stimulating congress and a summary of it was subsequently recounted to the other members of staff.

Hospital Visits

For some years now this section has been co-operating with staff of the Paraplegic Unit at Southport. The Head Occupational Therapist has visited Liverpool patients in the hospital, to discuss the problems of rehabilitation and re-settlement into the home situation with staff, patients and relatives. During 1970, Dr. H. P. Jones has accompanied the Head Occupational Therapist on these visits. Over 16 years this system has proved very useful and has resulted in better arrangements being made for the patients and has enabled staff to support and reassure relatives that they will receive all the help necessary when the disabled person is discharged. Most of these patients have fractured spines, often as a result of car accidents or falling from a height or from diving into a shallow pool. The resulting disability is very grave and the shock to both patient and relatives equally serious. Most of these cases will spend the rest of their lives in a wheelchair and the problems of adaptations or rehousing (see below) have to be faced as soon as the prognosis is known.

Case Histories

1. In February 1970, a man was admitted to Southport Promenade Hospital after an accident resulting in a fractured spine. He was seen in hospital by the domiciliary therapist ten days after the accident. The patient's wife was at the hospital and after discussion, the therapist arranged to see her at home. At this early stage the relatives are often unable to accept the fact of permanent disability and the therapist must in fact, "treat" the relatives as well as the patient, until a realistic approach to the situation is possible.

This family were already on the housing list under demolition, but had been offered a maisonette which would now be quite unsuitable. The Medical Officer recommended special medical consideration and it was fortunate that an adapted house was becoming available and this family were made an offer. There were various problems to be overcome before they agreed to accept the house, but once in it they were delighted and the patient was able to be discharged from hospital directly to the house. This is the first time that such a quick solution has been found for any of these cases and the fact that he was able to attend one of the department's rehabilitation units right away, as he lives round the corner and could be pushed there in his wheelchair, has enabled the patient and the family to accept the changed circumstances. He continues to make slow progress and can stand in calipers for short periods. He has little recovery of hand movement and the problem of future employment has still to be faced.

2. A boy of 15 was admitted to the Paraplegic Unit following a road accident. He was severely injured and it seemed unlikely that he would walk again and even arm and hand movements were severely affected. The family situation had been unstable before the accident and the tension between members of the family was increased by the shock of the accident.

The Occupational Therapist visited both the hospital and the home regularly to keep in touch with the patient's progress and also the home situation. After lengthy discussion, over a period of time when the family vacillated between accepting adaptations to their present house and insisting on moving out of the area, they finally agreed to the installation of a small lift and certain other adaptations. There was a delay of seven months between the request to Social Services for the lift and adaptations and the actual installation of the lift and completion of the adaptations. The lift has proved very satisfactory and the increased facilities have made a tremendous difference to the whole family situation. The boy was admitted to the department's rehabilitation unit on discharge from hospital and when further improvement was noted he was transferred to the Outpatients Department at the Royal Infirmary, for intensive physio- and occupational therapy. He can now walk short distances in calipers and is able to use his hands sufficiently to make quite intricate models, but it seems unlikely that he will regain full independence.

Clinics for Amputees

During 1970, Mr. Helsby, consultant surgeon at the Royal Infirmary has held frequent case conferences and the patients discussed are those on whom he, or members of his surgical team, have recently performed lower limb amputations.

Present at these discussions in addition to the surgical team are hospital staff i.e.

1. Sister-in-charge of nursing
2. Medical social workers
3. Occupational therapists
4. Physiotherapists
5. Nursing liaison officers

Consultant — employed by the Ministry of Health giving advice on prosthesis, wheelchairs and motored vehicles.

Domiciliary Occupational Therapist — employed by the Local Authority, who advises on and arranges the supply of aids needed by the amputee, when living at home. In some cases alteration to the home is required and occasionally rehousing is necessary, with the inevitable delays and frustrations which this entails. One practical outcome has been that the Occupational Therapy Department at the Royal Infirmary, encourages the manufacture of bathseats and boards by the patients, and these aids are almost always needed by the amputee.

The clinic was started by Mr. Helsby because of his concern at the lack of follow-up and liaison between the hospital services and the local authority service. With the help of a research team from the University the above-named officers have prepared a questionnaire which is being filled in by 200 amputees who have been treated in the last five years. It is interesting and rewarding to observe how the more recent patients have benefited from the liaison and personal contacts which have been made as a result of these case conferences which now replace the former “hit and miss” methods of referral. Members of the team working in hospitals and homes now have a much better understanding of the difficulties of their opposite members and much time is saved by each member of the team knowing who to contact for help on a particular detail. There is still far too much delay, but it is felt that the process of rehabilitation of the amputee is streamlined as much as possible.

Aids

It is often necessary to provide aids of all types to help a person to be independent, and sometimes to lend equipment such as special chairs, hoists, trolleys etc., but as no two handicapped people have exactly the same difficulties much of the equipment has to be adapted or invented and made by the occupational therapist or the technician and patients in the rehabilitation units.

The technician employed by the section is unable to keep pace with the volume of work and the service to the handicapped people would be greatly increased by the employment of another technician capable of both working with handicapped people and in making equipment designed to assist them in the ordinary activities of daily living.

During the past year £560 of this equipment has been made in the Occupational Therapy Units. Some of this money has been recovered by payment from the Social Services to the O/T Section but during the year this method of repayment ceased as it was felt to be unnecessarily cumbersome and expensive in clerical officers' time.

The present system of this section having to order through the Social Services, aids which need to be purchased from outside firms, has caused considerable delay during this year. This appears to be due to shortage of clerical staff in the Social Services Section, and in many instances there has been a delay of approximately three months, and in some cases as much as six months, between the issue of the request to the Social Services Section and the cutting of the order by that section. There is then a normal delay of between 6—8 weeks before receipt of the equipment. This in no way reflects the goodwill and co-operation of the officers in the Social Services Section but is merely a reflection of the shortage of clerical staff to deal with the volume of work.

Adaptations

This is a highly specialised job and senior staff of this section work closely with the Housing Architects and Surveyors in working out plans to adapt existing houses, or houses in the planning stage to meet the requirements of the handicapped. In almost all cases space is extremely limited and an added inch may make all the difference between a plan being successful and a complete failure. Before starting to consider adaptations it is essential to know the capabilities of the handicapped person and also something of the prognosis. Without this knowledge a plan may become useless before the adaptations are complete and result in unnecessary waste of money.

Unfortunately, the cost of adaptations has risen steeply over the years and a plan which a few years ago would have cost £400—£500 now costs approximately £900. Partly because of this and the need to make the available funds help as many people as possible, this section has been looking for alternative means of enabling handicapped people to move about the home and use the existing facilities with the minimum of alteration and building on. One method used this year has been to install a small lift which is worked by counter balance and so has no mechanism to go wrong. This necessitates cutting a hole in the ceiling of the ground floor room, and the platform of the lift forms the floor of the room above, when the lift is up. There is not always space for the lift and it could be dangerous in some households. The existing bathroom may not be suitable for the handicapped person to use but when these difficulties can be overcome this lift is a comparatively cheap way of enabling a handicapped person to live a more normal life. (See case histories.)

Another method of moving a person in a wheelchair upstairs is a “stair lift” capable of carrying a platform large enough to hold a wheelchair and to carry the handicapped person in the chair just clearing each stair tread and stopping level with the landing. There is only one engineering firm known to have designed such a lift to carry a wheelchair and this firm has only produced one for a man living in County Durham. The Head Occupational Therapist has been to County Durham to see the lift and has consulted with the firm on the design of two for Liverpool patients which will be installed during 1971. This lift can only be operated on a certain type of staircase and is more expensive than the lift previously described but again is cheaper than some major adaptations and also enables the handicapped person to use the whole of the house instead of being confined to the ground floor.

The advantage of both these lifts is that they can be removed and set up in another house should the need cease to exist.

Housing

Once again the Occupational Therapy Section has worked closely with the Medical Housing Points Section. Members of the domiciliary staff are asked to assess the suitability of a handicapped person's present accommodation, bearing in mind the limitations imposed through the disability, and to recommend, or not, for rehousing. The aim is to enable the handicapped person to live as independently as possible and to minimise the effects of the disability of other members of the household. In certain cases it is possible to recommend adaptations to the property, but in cases where this is impossible or undesirable then a recommendation for special priority housing or a medical transfer may be the only solution. When special housing is necessary e.g. for a wheelchair case, the usual practice is for the Housing Manager in the area concerned to contact this section to discuss the requirements and eventually for a senior member of staff to visit any proposed accommodation to assess its suitability before an offer is made to the client. In some instances the only solution is to adapt houses or flats in the building stage, and while this is often more satisfactory than adapting existing property, it does mean that there can be a delay of anything up to two or even three years before the property is ready for letting. The City Housing Department have kindly supplied a list of building projects with the types of accommodation planned, for the use of the Head Occupational Therapist. This enables her to see at a glance if suitable accommodation is likely to be available in any particular area.

Although all the Housing Managers are extremely helpful and do their best to find accommodation to suit the needs of the handicapped, the fact which has to be faced is that very few Corporation dwellings are suitable for someone in a wheelchair, unless gross adaptations are made and in many instances even this is impossible. It is hoped that with the implementation of the Chronically Sick and Disabled Persons Act it will be possible to formulate a policy of incorporating special housing in all new building projects. The Head Occupational Therapist has produced a short report on the housing needs of handicapped people and it would be a great step forward in the services for the handicapped if serious consideration could be given to this. The following is an example of delays caused by lack of suitable ground floor accommodation. Mrs C was recommended for special priority housing in 1967. Over a period of time three offers were made but none of them fulfilled the medical requirements. Eventually in 1970, it was discovered that two-bedroom ground floor flats were to be erected on a site acceptable to the handicapped person and that it would be possible to make alterations to the plans. This was done and it was hoped that the accommodation would be ready early in 1971, but because of strikes on the site it now seems likely that a further delay can be anticipated. Four years is far too long for anyone on priority housing to have to wait.

Renal Dialysis

The Head Occupational Therapist works closely with the staff of the Kidney Units at Sefton General and Mossley Hill Hospitals arranging for kidney machines to be set up in patients' homes. During the year a further one has been completed and is now in operation and another family has been rehoused in order to make room for a machine and this one should be completed early

in 1971. The liaison between all the departments concerned is now running smoothly and delays have been cut to a minimum. On completion of the installation of the last machine there will be a total of 10 in operation in Liverpool.

Holidays

During the year 84 handicapped people were taken on holiday by this section. An effort is made to select people who are apparently unable to have a holiday otherwise. Some of the people require a great deal of assistance in dressing and toilet etc., and as the number of helpers is limited, a balance has to be kept between the severely handicapped and those more able to help themselves.

One party went to a hotel at Barmouth accompanied by three Occupational Therapists and a member of the Territorial Army who stepped in at the last moment to help the disabled men of the party. This has always previously been done by the male ambulance drivers who have accompanied the party, and who have also taken small numbers of the handicapped for short drives during the day. This year this was not found to be possible and two female drivers were sent instead. The proprietors of the hotel are very helpful and do their best to see that everyone enjoys themselves. Members of the Barmouth Rotary Club took some of the party for drives in their cars, carried people up the steps into Church, and came one evening to entertain. A concert was arranged on another evening by the hotel proprietors and a number of local people entertained the party. Unfortunately, one young lady became acutely ill and had to be rushed back to Liverpool by ambulance. The local doctor was very helpful in arranging this.

Another group of handicapped people spent a week at a hotel near Caernarvon. This party was accompanied by four Occupational Therapists, a nurse and two male members of the St. John Ambulance Brigade and an ambulance driver. This also proved to be a very happy holiday with the hotel arranging a certain amount of evening entertainment.

Patients and staff from the Johnson Street Centre went to Prestatyn Holiday Camp and a brief description of that holiday will be found under the heading Johnson Street Mental Health Centre.

Once again a small group of younger handicapped people went for five days to a camp up in the mountains of Wales. They were required to help with certain chores such as washing up and making beds, but plenty of time was left for excursions and visits to places of interest. The highlight of the evening entertainments was a barbecue held by the river side.

Outing

A very successful outing was held during the summer to Chester Zoo. It was a perfect day and those who could not walk far enjoyed sitting in the sun. A number of voluntary helpers rendered yeoman service helping to push wheelchairs around.

Shopping

Since 1966, this section has organised a Christmas Shopping Evening at Lewis's store in Liverpool. Approximately 800 handicapped people from all

over Merseyside have attended each year with an equal number of helpers. In 1970, the General Manager of Owen Owen's store indicated that his store would be prepared to take a turn in offering this facility and this was gratefully accepted. Unfortunately, the limited size of the lifts caused some congestion but on the whole the evening was a great success.

Carol Service

Once again a Christmas Carol Service was held at the Liverpool Cathedral for handicapped people from all over Merseyside. The large lift into the Cathedral had been renewed during the year, but unfortunately, it chose that Saturday afternoon to go slow, with the result that some of the handicapped were late getting into the service. Dr. J. B. Meredith Davies, Dr. H. P. Jones and three handicapped people read the lessons.

REHABILITATION UNITS

Rumney Road

The department was redecorated at the beginning of the year and some new equipment bought. A cubicle was put up for dressing and assessment for aids to daily living. The cubicle includes a bed with sufficient space for a wheelchair, also an A.D.L. board with examples of aids for dressing, eating and various gadgets for the household. An examination plinth was also obtained and some new office furniture.

New department equipment included a mobile hydraulic hoist, a low level woodwork bench which was made to our own specifications for wheelchair patients, by the Government Training Centre, Stopgate Lane, and also a new cooker. A split level oven unit was decided on as this was the only type which now has the control panel within reach of wheelchair patients. Switches are usually at the top of the back panel and cannot be reached by these patients. The oven unit was put on a small platform and the patients continue to use the two ring hot plate on a low table alongside the oven unit.

The difficulty with transport continues with no more than ten new patients starting at the unit during the year.

Case Histories

During the year P (from last year's Annual Report) was admitted to Greenbank Special School and is reported to be able to follow his studies there.

Mr. K was admitted to the unit initially in June 1969 with a Right Hemiplegia from which he proceeded to make good recovery. However, in September 1969 he developed an infected toe which was investigated and found to be gangrenous as a result of femoral embolus. This necessitated an above knee amputation of the left leg and the patient was readmitted to the unit in May 1970. He now found he had quite a problem with his right hemiplegia, and amputation of the left leg. He had fortunately made a good recovery from his hemiplegia as regards walking and had good power in his right hand, but had considerable contraction and limited range of movement in this.

From May to July 1970, he was fitted with a pylon with which he was given walking practice between the parallel bars and later progressed to practise on stairs which are at the unit. To ease the home problem he was issued with a Jones-Bonson chair as a temporary solution in getting about.

In July 1970, he was issued with an artificial leg and after this it was possible to give further walking practice and also give exercise on the Oliver Rehabilitation Machine to improve muscle tone and power of the stump. At first the patient was able to pedal backwards only, but he has now progressed to be able to pedal forwards against considerable resistance. His walking has much improved and a second handrail has been fitted on his staircase at home so that he can now manage these. Mr. K is of retiring age and, therefore, employment is not considered in future planning.

Mr. R has suffered from progressive Parkinsons Disease since 1956. In 1966 he underwent a thialatomy operation which resulted in diminishing the tremor but he had a tendency to slurred speech which got worse. By early 1970 his speech had become extremely difficult to understand. He also suffered from excess salivation which added to this problem. The patient's food had to be cut up for him as he could not even manage a Nelson knife.

He had the characteristic shuffling gait, falling often and a wheelchair had to be used for going any distance out of doors. Psychologically he was quite demanding, needing constant pushing and had a tendency to depend on others for help when not always necessary.

In September 1970, he was referred, by Dr. Jones, for attendance at the clinic at Walton Hospital for trial on eldopa. He was admitted in November 1970 for five weeks. When he restarted attendance at the unit he showed a dramatic improvement, walking with long strides with no tendency to falling, speech still a bit indistinct but much improved. He now manages a knife and fork and a full cup of tea which would previously have been spilt if more than half full, and the excess salivation has ceased. He also has a quite different personality than previously, if anything he seems to have excess energy and has to be stopped from continually assisting other patients. His speech is so much improved now that it has been suggested that he might benefit from a course of speech therapy, and this is now in the process of being arranged. While at Walton Hospital it was found that he had arthritis in the neck which accounted for some forward flexion of the neck and he received treatment at Walton Hospital for this. We are continuing in the effort to straighten the neck by having him doing some weaving on a loom which has been positioned on an elevated board so that the work is above eye level and he has to reach up to it.

Longmoor Lane

Attendance numbers are lower than formerly, due to lack of transport. There are variations in daily attendance between eighteen and twenty-eight. There is also, unfortunately, a waiting list due to transport difficulties.

During the year there have been twenty-eight new patients admitted to the unit while a similar number have been discharged. Of those discharged, some continued their everyday life at home feeling more able to cope with their disabilities, while others were discharged to work in open or sheltered employment. Some were discharged for further training or assessment for work to a Government Industrial Rehabilitation Unit. A few who required social contacts outside the home, and whose disability limited mobility now attend Welfare Craft Centres. A number of patients have undergone further hospital treatments and have returned to the unit after discharge from hospital.

There have been several staff changes during the year among the Occupational Therapists and at present there is a staff shortage. We continue to have a woodwork technician and a bath attendant visits the unit one session per week. A medical officer now attends the unit two days per week.

Activities undertaken by the patients attending the unit continue to be varied according to the individual needs of the patients. Some patients attend for one session only to be assessed for some specific aid to daily living. Examples of these aids being hoists either electric or hydraulic to assist the patient in moving from wheelchair to bed or bath or lavatory. Kitchen aids are also available. A group of telephones of various types have been placed in the unit by the G.P.O., to enable disabled people to find out if a modified telephone such as those with amplified and varied speech control or variation in ring of bell or fixed handpieces can be of help to them. By trying out these aids in the unit, it can be ensured that the aid will be useful to the patient before it is installed in the home.

The majority of patients attend the unit for at least a year, some attending one day per week while others attend two or more days per week. Of these, some have specific exercise to improve mobility, strengthen weak muscles or improve co-ordination. While others are building up work tolerance and work habits, the disabled housewife may develop confidence in the kitchen and in household activities and find she can cope better in the home.

Social and recreational activities also play an important part in the treatment of those who attend the unit. Riding and swimming are looked upon by those patients who participate in these activities as recreational, but are found to be very therapeutic by the therapists.

Group socials and outings are also popular as many of these patients are confined to their homes for most of the time and so social contact is limited. A group of fifty were taken to the theatre and this proved enjoyable and was a topic of conversation amongst those who went, for some weeks afterwards.

Case Histories

Miss R, aged 21 years. Diagnosis—Spina Bifida

This girl was admitted to the unit in July 1966, having left a school for physically handicapped at the age of 16 years.

She was confined to a wheelchair and had no movement below the waist i.e. she was a complete paraplegic with double incontinence. She was a pleasant girl but was immature and relied upon her parents to perform many everyday tasks for her. The treatment aims were to increase independence and perhaps ultimately to enable her to find some form of employment.

The activities used in early treatment centred mainly on practice in daily living activities such as dressing herself. Cooking simple meals was a part of her treatment, and encouragement was also given in the direction of reading and writing of letters, as she appeared to lack confidence in this field.

Slow progress was made and little change was noted for at least eighteen months. Towards the end of 1967 some thought was given to the question of employment, but before this could even become possible it was necessary that the patient could get herself to and from work. It was thought she could now manage an invalid car. In June 1968, the patient could now transfer herself from wheelchair to bed and toilet and was now able to dress herself entirely. She started to show great interest in evening entertainment and at last she was very keen to join in all activities normal for young people. In December 1968, she received an invacar and now began to participate very fully in all activities. By May 1969, she was getting around in her invacar and was now entirely independent and very eager to move on from the unit to further training or work. In November 1970, she was placed in the Industrial Rehabilitation Unit on a trial basis. Further reports from the patient indicate that she enjoys this and is now trying to find a job. She now enjoys a life that is as near normal as her severe disability allows and looks forward to being an active and fully occupied member of society.

Mr. F, aged 48 years. Diagnosis — epilepsy

This patient was admitted to the unit in July 1968. Prior to 1967 he had been perfectly well and had worked in a plastics factory.

The patient came each day to the unit by public transport. He was an apparently normal man and there was no indication of his disability. He was observed at the unit while undertaking woodwork, printing and gardening. No fits were noticed although he did have them about once in five weeks at home. We continue to observe the patient, but no fits were noted, and in August the D.R.O. was asked to see the patient with a view to assisting the patient to find employment. The Disablement Resettlement Officer placed Mr. F in the I.R.U. in September of 1969. Mr. F satisfactorily undertook an assessment course there for a week and he was recommended for gardening or factory work. There was some delay in a job becoming available but the patient is now in employment.

Balliol, Mill Bank

Numbers treated	— children	42
	— adults	38
New patients	— children	20
	— adults	26
Discharged	— children to Greenbank School	2
	Sandfield Park	6
	Tudor House	3
	Ordinary day school	1
	for other reasons	7
	— adults	15

Treatment of children

During the course of the year our activities have been very similar to last year. We have continued with our intentions of bringing the older groups in without their mothers and this has proved successful to the extent that the schools have noticed how much more easily the children are settling in when they are transferred from this unit.

For the children who only require supervision in play or if the home condition suggests nursing care, Tudor House and Dingle House have now come into operation. This has meant that we have been able to transfer children to these nurseries to leave places for children who require more specific occupational therapy. Tudor House is purely for children with Spina Bifida and, therefore, because of this, we now feel we can take children with other disabilities into the unit at Balliol.

For the coming year our programme is being planned to take older children, i.e. those who are to be discharged from hospital but are requiring treatment in transitional periods between hospital and returning to school.

Case History

J aged 5 — Spina Bifida

First attended in January 1968. At that time she was unable to sit up without support and could not crawl or pull herself along. Her back has not been operated on and at this time it was causing concern due to the problem of trying to get it to heal. She had had the S.H. Valve inserted approximately 2½ months and there had been no trouble in this respect.

For a long time after the calipers were supplied J very rarely used them due to the problem with her back. However, in other respects marked progress was made. At the age of 3 she could sit up alone and was soon beginning to pull herself along the ground. Mentally she was well below average with an I.Q. of 60 at first assessment. Her powers of concentration were, however, improving.

During 1969 she was in and out of hospital for various reasons but the main one being for the ileol-loop operation which was finally performed early in 1970. With these spells in hospital she lost a lot of confidence in herself and other people and it was some time before we could get her to come to Balliol without her mother.

Throughout all this time and until she went to school, we had the utmost difficulty in teaching her to use her calipers. Due to her abnormal shape she had a tendency to lean forward thus upsetting her balance and also creating an impossibility of swinging from side to side to move her legs. During this last year she has progressed well, mentally and physically, and she was accepted at Greenbank School where she has settled in well.

Adult Hemiplegics

We have continued to have the two half sessions each week and find that by doing this we can give more individual and intensive treatment with the small number in each group.

It was originally intended to have each patient for three months at the end of which time the case would be reviewed. If we felt that the patients were sufficiently independent and had access to social contacts of their own we were to discharge them. The remainder would fall into two groups; those who required more intensive rehabilitation with equipment provided at our other units and those who required social contacts only and could, therefore, be referred to the Social Services Day Centres. However, in the case of these two groups we were unable to carry out our plan due to lack of transport facilities and these patients were then thus losing the opportunity to meet new people.

By holding on to them we are having to alter our programme to make an extended treatment in a therapeutic medium. Light woodwork, indoor gardening, kitchen and household activities are planned.

Case History

Mrs. B aged 64 was referred to the Domiciliary Service in April 1970. She had just been discharged from hospital following a stroke which occurred early in March 1970. The domiciliary occupational therapist on visiting her found that she had made good progress. There had been an initial aphasia but her speech was now fairly normal. She could walk without a caliper though one was ordered to give greater ankle support. In her right arm there was slight shoulder and elbow movement, a little flexion in the fingers but no extension. Sensation was also diminished. The occupational therapist felt that treatment at Balliol would be beneficial and, therefore, the normal channels were negotiated and she commenced treatment in June. Progress was good and the treatment was planned to include home visits where an accurate assessment of capabilities could be carried out. The necessary aids were provided and, in fact, within a few months two aids were returned because sufficient return of function allowed her to manage without them.

Present situation: Although there is not complete recovery of movement there has been a 50% improvement all round. We feel she has now adapted very well and has mastered nearly all needs to the extent that she is sufficiently independent to be discharged. She does, however, require social contacts and in this respect we are hoping that the Social Services Department will be able to help.

Johnson Street — Mental Health Centre

The original object of this centre was to provide the rehabilitation stage between mentally ill patients leaving hospital and returning to work. Over the years there has built up a residue of patients with chronic mental illness who apparently have no chance of returning to normal employment. If this type of case is discharged to remain at home he quickly deteriorates and is soon back in hospital again. The predominance of chronic cases has an adverse effect on any new patients who might have a real chance of being rehabilitated with the result that they either refuse to attend or else tend to deteriorate to the level of the others. It is obvious that much larger premises are needed with facilities for grading patients into different workshops where each can be treated according to his needs.

Transport is not provided for patients attending this centre but they are given a bus ticket to get them to and from home. The official times of attendance are from 9.30 a.m. — 4.00 p.m., but a number can always be found in the centre at 8.30 a.m.

Twenty-five patients attend each day and there is a total of fifty on the register at any given time. Attendance is for a varying number of days according to the needs.

In planning the programme for the unit, activities are chosen that will relate realistically to the background and/or environment of these patients. The daily routine at the unit lays emphasis on good work habits and regular and

punctual attendance. As much as possible self-discipline and initiative are encouraged as the chronically mentally ill can tend to become passive and withdrawn. A patients' committee has been formed and is working quite well. A few individuals progress to doing a part-time job as long as they receive support from the centre e.g. Mrs. D, middle-aged and newly married to an ex-client of this centre, works one day a week repairing linen for a hostel. However, this job is single-handed and the fact that her husband's job involves her being alone at home a lot, could be socially isolating. She benefits from the activities and companionship at the centre and is a useful member of the group.

Amongst the recreations carried out are swimming and badminton on the Newhall Estate. Some have acquired sufficient skill to join their local clubs and to venture to the public baths. Holiday members of the group have been successful in competitions of various kinds held at the holiday camp in North Wales to which a party is taken annually. The group is accommodated in self-catering flats which they have found beneficial and enjoyable. E.g. Mr. B, an elderly man whose wife died recently and whose grown up children have left home, is depressed, anxious and isolated. On the holiday he enjoyed the comfort of the modern flat and the stimulus of new surroundings. He became a keen attender at the camp ballroom and received a handsome prize and well earned praise when he won the crown bowling tournament against good competition.

PART C – ENVIRONMENTAL HEALTH DEPARTMENT

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Environmental Health Control

During the second half of the year the Public Health Inspectors Division was transferred from Hatton Garden to accommodation in Brougham Terrace, which is now the Headquarters for this Division. The re-organisation included the closing of district offices in Picton Road Baths and Balliol House, Mill Bank, and the inspectors from these offices, together with the Rodent Control Sub-Section are also now accommodated in Brougham Terrace.

Once again the Public Health Inspectorate have been required to spend a considerable amount of time on the inspection of houses under the provisions of the Housing Acts, as in addition to the work concerned with the representation of unfit houses, visits were made to 26,243 houses which form part of a total of some 40,000 houses which are being surveyed with a view to the formulation of a programme for rehabilitation and improvement. The 734 houses represented as unfit for habitation for inclusion in ten clearance areas is the lowest for several years, but since the slum clearance programme recommenced in 1947, a total of 39,994 houses have been represented as unfit for habitation and included in clearance areas or dealt with individually. The details of action under the Housing Acts are included later in the Report.

Visits continued to be made under the provisions of the Offices, Shops and Railway Premises Act and since inspections commenced in the second half of 1964, a total of 41,711 general and additional inspections have been completed, and 28,615 infringements have been dealt with.

Work under the Clean Air Acts has continued in accordance with the agreed programme, and the work of conversion has been concentrated in the No. 23 Area (Gillmoss) as the Order for this Area is due to become operative on the 1st May 1971.

Details of Visits

Inspectors visit houses to make enquiries following notifications of certain infectious diseases. The number of visits amounted to 787 and the number of enquiries regarding contacts was 175.

Investigations have continued in connection with ingestion disease enquiries and inspectors obtained information about contacts and modes of infection. The number of specimens submitted for bacteriological examination amounted to 3,216 from 1,774 persons, of which 857 from 348 persons proved positive.

Three lodginghouses were closed during the year and there are now 8 registered common lodginghouses in the city, 7 providing accommodation for 707 males and one providing accommodation for 94 females. The public health inspector made 213 visits both day and night, resulting in notices being issued in respect of byelaw infringements and on 9 occasions it was necessary to give the keepers a verbal warning. The reduction in the number of lodginghouses resulted in approximately 25% of the total beds available, being vacant at any one time.

A total of 1,258 beds were examined and 210 beds or articles were found to be verminous and subsequently cleansed by the local authority. During the year it was found necessary to cleanse 157 persons living in these houses.

The weekly meeting of the Special Sub-Committee has again enabled emergency action to be taken for the remedying of urgent defects and where occupiers were suffering severe discomfort due to outstanding items of disrepair, arrangements were made for the work to be carried out in default of the owners, to remedy unsatisfactory conditions affecting 560 houses. The work included the clearing of 49 drains, the restoration of the water supply to 424 houses provided with joint supply pipes and the remainder of the work was mainly in connection with repairs to roofs. The cost of the work will be recovered from the owners of the premises.

During the year it was necessary for 41 prosecutions to be taken and penalties and costs which were imposed amounted to £390 5s. 0d.

A total of 44,335 requests was received for inspectors to visit premises and altogether a total of 311,672 visits and inspections was carried out under the various enactments and 10,114 notices were issued under the Acts and Regulations.

Defective drains caused rodent infestation, flooding and subsidence. Drainage systems tested to remove these problems numbered 815 and notices were issued in respect of 299 drainage systems which were found to be defective. In addition, choked or defective public sewers were referred to the Chief Engineer's Division for action under the provisions of Section 24 of the Public Health Act, 1936.

Under the terms of faculties, or licences issued from the Home Office, inspectors supervised the exhumation of 8 bodies during the year and the remains of 2 persons were shipped abroad.

Other departments have co-operated by forwarding references in respect of matters requiring the attention of inspectors and 6,188 references were forwarded to other departments.

Housing and Slum Clearance

The detailed inspection of sub-standard housing accommodation has continued throughout the year resulting in 734 houses in clearance areas being classified as suitable for demolition having regard to the standard of fitness laid down in the Housing Act, 1957. The 734 houses were included in 10 clearance areas. Since the programme recommenced in 1947, a total of 39,994 houses have been represented as unfit for habitation and included in clearance areas or dealt with individually.

There were 2,352 houses in 32 clearance areas made the subject of 18 compulsory purchase orders. 20 compulsory purchase orders comprising 3,743 houses were submitted to the Minister of Housing and Local Government for confirmation and one clearance order in respect of 14 houses was also made and submitted for confirmation.

Twelve Public Inquiries were held involving a total of 3,329 houses in 18 orders, and during the year 22 compulsory purchase orders involving 3,430 houses and 2 clearance orders involving 26 houses, were confirmed.

There were 3,775 families rehoused from houses included in confirmed orders.

The General Purposes Sub-Committee dealt with a number of individual unfit houses under the provisions of Part II of the Housing Act, 1957, a total of 58 dwelling houses being represented to the Sub-Committee as unfit for human habitation. These premises were occupied by 74 families.

The Sub-Committee considered the condition of 64 houses which included a number which had been represented the previous year. Of these it was resolved that demolition orders be made in respect of 5 houses and closing orders in respect of 59 houses. In addition, 21 representations in respect of rooms and parts of premises occupied as separate dwellings which were unfit for human habitation were considered and in 20 cases it was decided that closing orders should be made, and in the remaining case a decision had not been made.

Following upon the rehousing of the occupants in premises subject to operative orders 11 houses were demolished and 16 were closed and sealed. In addition, 13 dwellings being parts of premises were also closed.

Premises were reinspected where owners had carried out works as required to to make premises fit for habitation and as a result of the works undertaken the Committee during the year rescinded 4 closing orders.

Rent Acts, 1957/1968

A total number of 33,564 visits has been made by public health inspectors to dwellinghouses, under the provisions of the Rent Acts, 1957/68, since the 6th July 1957, when the Act became operative and a total of 9,347 applications for certificates of disrepair have been received. Some 3,285 tenants have applied for certificates as to the non-remedying of defects specified in undertakings given by landlords, and 2,693 applications have been received from owners for certificates as to the remedying of defects in undertakings which they have given to tenants.

Figures in 1970 were:

Total number of applications for certificates of disrepair	77
Number of notices served on landlords of Local Authority's intention to issue certificates of disrepair (Form J)	77
Number of undertakings to carry out repairs received from landlords (Form K)	36
Number of certificates of disrepair issued to tenants (Form L)	27
Number of landlords who completed the repairs within the statutory period following the service of Form J	4
Number of applications (Form O) from tenants who have applied after owners have failed to comply with undertakings given (Form H or K)	7
Number of certificates (Form P) issued to tenants	7
Number of applications (Form O) from owners who have completed their undertakings	21
Number of certificates (Form P) issued to owners	21
Number of applications (Form M) received from owners for a cancellation certificate	10
Number of objections to cancellation received from tenants	1
Number of cancellation certificates issued	9

If the landlord is not satisfied that all the defects as listed on the certificate of disrepair are reasonable he has a right of appeal to the County Court. Similarly, the tenant can appeal if he does not accept the decision of the local authority regarding the cancellation of the certificate on the application of the owner.

Where premises are subject to a certificate of disrepair the tenant has a legal right to reduce the rent payable in respect of a dwellinghouse until all the works as specified on the certificate have been remedied satisfactorily. Likewise, if the owner fails to carry out the works as listed on the undertaking, within the statutory period of six months, the tenant is also entitled to reduce the rent payable until such time as the defects have been remedied to the satisfaction of the local authority.

Housing Act, 1969

This Act which became operative on the 25th July 1969, sets out a fresh and self-contained code for the grant-aided improvement of houses, it also provides local authorities with additional powers to bring about the repair of houses by encouraging owners to make use of the grants offered and to assist in maintaining privately rented property in a reasonable standard of repair having regard to its age, character and locality.

The Act also introduces a new system governing the rents of privately rented dwellings which have been brought up to a satisfactory standard. Controlled tenancies can be converted to regulated tenancies where the qualifying standard is attained; the rent will be determined under the Rent Act, 1968 but it will be subject to phasing under the Housing Act, 1969.

If the owner of a rented dwelling wishes to obtain an improvement grant and subsequently obtain a higher rent for the property, he must apply before

commencing any work for a certificate of provisional approval, if this is issued he then applies to the rent officer for a certificate of fair rent.

When the premises have been converted and approved the local authority will issue a qualification certificate which converts the controlled tenancy to a regulated tenancy. The landlord then applies to the rent officer for the registration of a fair rent in accordance with the certificate of fair rent which was previously issued.

If the owner of a rented dwelling which is provided with all the standard amenities applies to the local authority for a qualification certificate, a copy of the application is forwarded to the tenant who is allowed twenty-eight days to contact the Health Inspectors Department if he wishes to object for reasons that the premises are not in good repair, or that one or more of the standard amenities are not provided.

If the dwelling when inspected by the public health inspector is found to be fit for human habitation and in good repair together with all the standard amenities, a qualification certificate will be issued to the owner.

However, if the dwelling does not conform with the requirements of the Act, the application would be refused until such time as the owner has completed all the necessary repairs or replacements to the satisfaction of the health inspector.

The following statistical information is in respect of applications received during the year:

Improvement cases

Number of applications for qualification certificates under Section 44(2) under consideration	146
Number of certificates of provisional approval issued	115

Standard amenities already provided

Number of applications for qualification certificates under Section 44(1)	4,976
Number of qualification certificates issued under Section 45(2) in respect of:	
(1) dwellings with rateable value £60 or more	72
(2) dwellings with rateable value £40 to less than £60	52
(3) dwellings with rateable value less than £40	Nil

Compulsory Improvement of Houses

During the course of the year a number of representations were received from the tenants of houses requesting the Council to exercise its powers under the provisions of the Housing Act, 1964 to secure improvements.

A total of 30 houses were considered by the General Purposes Sub-Committee and in 26 cases it was resolved to serve preliminary or immediate improvement notices. In 3 cases the owners have given undertakings to carry out the necessary work of improvement within a specified period and the Sub-Committee decided that no further action should be taken in the remaining case.

Loans on Mortgage

During the course of the year, the City Council again considered applications for loans on mortgage from prospective owner/occupiers and 1,331 houses were inspected for this purpose.

Improvement Grants

During the year 2,294 houses were inspected following enquiries regarding improvement grants and 187 applications for standard grants and 279 applications for discretionary grants were authorised.

Shops Acts, 1950 to 1965

The work of the department for the purposes of the Shops Acts has been mainly associated with complaints and general observations on Sundays and in the evenings. Routine duties have been limited by other priority work, but inspectors have dealt with staff welfare matters such as intervals for meals, statutory holidays and the employment of young persons, during their visits to shops for food hygiene and Offices, Shops and Railway Premises Act purposes.

Shops legislation has not yet been amended, but a Private Members Bill at present before the House of Lords, is designed to deal with the present anomalous provisions affecting Sunday trading. The Bill is based upon the Crathorne Committee's recommendations for Retail Trading on Sundays and appears to have a comparatively good chance of approval.

The general pattern of trading has not changed during the year, although a supermarket firm illegally started to trade six days a week outside the central area of the city where six-day trading is authorised. Representations by this department succeeded in correcting the situation.

Shopkeepers who are required to observe a weekly early closing day, are, with very few exceptions, keeping to the Wednesday half-day, although it has been possible since August 1965 for them to select any week-day as their early closing day.

Complaints from traders regarding other shopkeepers not observing the Sunday and evening closing provisions have been few, but a total of 3,050 visits to shops were made during the year on Sundays and in the evenings. There were 51 infringements dealt with by warning letters, but there were many matters which required advisory action. A few enquiries have been made anonymously by shop assistants regarding their conditions of work and in all cases they were fully advised and assured that if they wished the matters complained of to be investigated this would be done without disclosing the source of the complaint or information.

Hairdressers and Barbers

The number of registered hairdressers at the end of the year was 823. There were seven new businesses registered and ten transfers of businesses to new owners during the year. In connection with these registrations and other matters, 167 visits were made to hairdressers' establishments and 50 contraventions of the Hairdressers Byelaws were dealt with by warning letters.

The standard of cleanliness of these premises and the suitability of the equipment and furnishings were generally satisfactory and an indication of this may be assessed from the fact that there have not been any complaints made to this department during the year.

There have been a few complaints or enquiries concerning hairdressing businesses being carried on in dwellinghouses, but the complaints were found not to be substantiated following the enquiries of public health inspectors.

Inspectors have given attention to the employment of young persons (under 18 years of age) and it was necessary to advise a small number of employers regarding the meal breaks and the maximum number of working hours required for their employees.

Pet Animals Act, 1951

There were 33 licences issued under the above enactment during the year, and 38 visits were made to these pet shops. The number of infringements totalled 25, seven of which were related to matters recommended by the Fire Officers who are responsible for the inspection of the fire precaution provisions and arrangements.

Animal Boarding Establishments

Three licences were issued in respect of premises in which dogs and cats are boarded, as compared with four licences issued in the previous year. The requirements of this enactment and the duties of the Fire Service Department and the Public Health Inspectors' Department are similar to those operative under the Pet Animals Act. Only one infringement was recorded.

Food Hygiene

The work of the department under the Food Hygiene Regulations has also been curtailed by the concentration of inspectors upon improved area surveys and other Housing Act inspections. However, all complaints have received the fullest attention and inspections of food premises of all kinds have been made during the course of various duties.

The number of inspections was 18,646 and 2,137 infringements of the regulations were dealt with by warning letter, and, in a few instances, by advisory action.

Whilst food hygiene standards are in the main satisfactory, the training of personnel remains the paramount task. One is still seriously concerned about the practical application of hygienic practices by all levels of staffs and by the owners of food businesses. There are still a considerable number of food handlers who are, or appear to be, insufficiently aware of the basic reasons for the standards they should maintain. There are, of course, many firms and food traders who are making a serious endeavour to acquaint themselves and their staffs with the law and practice of clean food handling, service and storage, but the overall progress is slow and incomplete.

One is reluctant to specify particular trades or areas in which this limitation of knowledge and practice appears to be particularly marked. Certain recent press publicity has exposed some very disquieting conditions in a section of the catering trade which underlines either the lack of adequate attention to the requirements of hygiene by owners of businesses or a tragic ignorance of their responsibilities by many employees in the food industry.

In order to further the educational needs of the industry there are occasions when this department accepts invitations to talk to food workers in their places of employment. An extremely informative course of lectures is arranged annually by this department in co-operation with the Royal Society of Health. These certificated courses in the hygiene of food retailing and catering have

proved invaluable in providing accurate and practical teaching for personnel in all sections of the food trade. Many employers demonstrated an encouraging interest in this training by paying the course fees for their staffs.

Regulations 16 and 19

The provision of hand-washing facilities and sinks for washing utensils, equipment and food in food premises is a matter which is given the fullest attention and appropriate action is always taken to ensure compliance with the relevant regulations. Whilst it is not possible to give the number of food premises in the various classes of trade which comply with these specific measures, it is recorded that there is some form of washing facility in all such premises, and where improvement or modification is necessary appropriate action is taken during the course of routine or other inspections.

Street Trading and Delivery Vehicles

Attention has continued to be given to the problems of food hygiene which are peculiar to street trading. 703 inspections of barrows and mobile shops have been carried out, and there have been 135 inspections of food transport vehicles.

One street trader was prosecuted for three offences and he was convicted by the Stipendiary Magistrate for failing to keep his hands clean, for not wearing clean overclothing and for smoking whilst serving open food.

There are approximately 100 barrow traders, 87 mobile shops and ice cream vehicles and three hot-dog firms known to the department. A total of 97 informations have been laid against 62 traders since the new regulations became operative in 1967, and fines totalling £174 have been imposed in addition to conditional discharges in 13 cases.

Special attention has also been given to the sale of wet fish by itinerant traders on the Dock Road and in the suburbs of the city and all contraventions have been dealt with satisfactorily.

Very few complaints are received about street trading generally, and these complaints are usually related to its operation in opposition to shopkeepers. It must be pointed out that questions of trading competition, fair or otherwise, the obstruction of roadways or footwalks, or the use of cleared sites as "markets" by groups of traders, are matters outside the legislation enforced by this department.

Offices, Shops and Railway Premises Act, 1963

This is the seventh annual report since this enactment became operative in 1964, and it outlines the work of the department to secure the safety, health and welfare of persons employed in offices, shops and certain railway premises.

There are now 11,111 premises registered under the Act and the number of new registrations during the year was 507 compared with 223 in 1969.

Since inspections under this enactment started during the latter part of 1964 a total of 41,711 general and additional inspections have been completed and 28,615 infringements have been brought to the attention of employers, occupiers or owners of premises by written intimation. It was necessary to prosecute a large retailing organisation for permitting a boy under eighteen years of age to clean a food slicing machine whereby he was exposed to risk of injury from a moving part of the machine, also for failing to notify the local authority of an accident. This case is referred to later in this report.

The contraventions recorded during the year involved the maintenance of clean premises; the reduction of overcrowding of rooms in which people work; the control of heating, ventilation and lighting; the maintenance of satisfactory sanitary conveniences, washing facilities, drinking water, accommodation for outdoor and working clothes, and facilities for the taking of meals by shop assistants; the repair and cleanliness of floors, passages and stairs; the guarding of open staircases, hatches and openings in floors; the protection of workers who have to use and clean dangerous machines; the provision and maintenance of suitable first aid materials; the investigation of accidents to employees, and defects reported by engineers following their examinations of passenger and goods lifts and hoists in shops and offices.

Inspections

Owing to the urgency of extensive Housing Act surveys, general inspections and additional visits were only 3,465 compared with 8,725 in the previous year. However, work under this enactment is linked with duties under certain other legislation, especially the Shops Act, 1950, which still retains certain staff welfare clauses, and a total of 19,440 inspections of shops and other workplaces have been supplementary to the work under the Offices, Shops and Railway Premises Act. In consequence of these additional visits further improvements have been secured for the benefit of those who work in such premises.

The total number of persons employed in all establishments registered up to the end of 1970 was 115,620 of whom 60,965 were females.

Notices involving 675 infringements have been served in respect of the various requirements of the Act, and this informal action was in addition to verbal advice given to employers and employees at the time of inspectors' enquiries, or during the course of the inspections of premises.

General Duties

The general work during the year under review has not brought anything of outstanding consequence to our attention. The conditions found in most

premises and the co-operation of the many employers have been of a satisfactory character. There have been consultations with public health inspectors by architects, employers, owners of buildings and contractors, and these have been extremely useful and beneficial to all concerned.

Her Majesty's Inspectors of Factories are also responsible for the enforcement of this enactment in offices and shops associated with factories, railway and local authority premises, together with certain responsibilities on the Dock Estate, and there is a happy and successful liaison between the factory inspectorate and the public health inspectors department.

The work under the general provisions of the Act, as already indicated, has been of a routine nature and on the whole quite satisfactory.

Special and detailed attention, however, has been given to the use of dangerous machines and notified accidents.

Dangerous Machines

With regard to dangerous machines 14 accidents were notified to the Public Health Inspectors Department, compared with 20 in 1969. Three of these accidents happened to young persons under 18 years of age, but they were operating the machines and not cleaning them. One adult was injured whilst cleaning a machine.

One has considerable concern about the number of young persons who, it is felt, are told to, or are permitted to operate and clean dangerous machines, especially food slicing machinery in shops and catering premises. The indications are that certain employers are not taking active measures to ensure that young persons do not clean machines or are adequately supervised whilst they are operating such machines. A contributing factor to the problem of providing effective supervision is, of course, the shortage and suitability of staff, and in many shops there is a predominance of young assistants, whilst the manager or manageress is possibly the only adult. This type of staff situation means that the manager is unable to do all the onerous tasks demanded of him and therefore, the slicing of bacon and cooked meats, and the cleaning of machines is given to the young persons to do.

The exhibition in shops and other premises of warning notices concerning dangerous machines, and the infrequent visits of senior personnel for the purposes of supervision do not satisfy the obligations placed upon employers by this enactment, and a recent High Court decision has made this clear.

Accidents

The notification of accidents in shops and offices was 355 compared with 474 in 1969. This reduction of notifications is a matter of some concern because it is due, no doubt, to either some ignorance of the legal requirements to notify the department of such accidents in the prescribed manner, or an attempt to conceal certain conditions or activities which may place the employer at some risk of being prosecuted. In order to improve the observance of this statutory requirement, inspectors, during the course of general and other inspections, advise employers and managers of their responsibility under these provisions.

One large organisation was convicted by the Stipendiary Magistrate for failing to notify an accident, and the Magistrate imposed a fine of £25. This firm was

was also fined £50 for allowing a boy under 18 years of age to clean a horizontal food slicing machine. The boy had been instructed by the manager of the shop to carry out this duty from the commencement of his employment and over a period of twelve months until the termination of his employment following an accident whilst he was using the machine.

It is with regret that we have to record two fatal accidents during the year. The first of these accidents occurred in the storage shed of a timber merchant's premises and the victim was a timber clerk, over sixty years of age and with 37 years' experience in the work. The clerk was working on top of a stack, measuring and recording stocks of timber, when he dropped his papers. He climbed down the "ragged" end of an adjoining stack which was 14 feet high to retrieve his notes when the high stack collapsed and crushed his chest against timber in the lower stack.

A police inspector gave the Coroner and Jury three possible reasons for the collapse of the stacks:

- (a) the clerk, whilst climbing down between the stacks, may have swung on the ends of projecting timber and this may have been enough to cause it to move;
- (b) a side-loader may have previously accidentally knocked the higher stack, perhaps without the driver knowing it;
- (c) someone may have walked on the top of the stack previously, disturbing the timber.

A verdict of misadventure was given by the Jury.'

The second fatal accident occurred in connection with the failure of a lift to stop at the ground floor of a large shop. The lift was being used by two members of the staff who were transporting articles for display purposes from the first to ground floors. This kind of lift trouble had occurred on previous occasions, but it was not serious and had been corrected by stopping the lift between floors and then pressing the control button for the appropriate floor.

On this occasion the lift was stopped some 4 feet above the ground floor, but it could not be re-started. The younger man managed to open the gates and jumped from the lift to the ground floor. A salesman assisted by taking the display articles which were handed down from the lift by the older man (63 years of age). The salesman also offered to help his colleague down from the lift, but the offer was declined. The victim sat on the floor of the lift and pushed himself out but when he landed on the floor he slipped and fell backwards down the lift-shaft to the base, some 12 feet below.

A lift engineer, in evidence at the Inquest, said the lifts at the premises were under a two-monthly examination contract, plus service calls. In his opinion the cause of the failure of the lift to re-start on the occasion of the accident was due to excessive vibration when the lift was stopped at speed. On previous occasions when they were called in to deal with the lift failing to stop at the ground floor they had found the lift working satisfactorily and in spite of exhaustive tests they had not been able to create a repetition of the failure or trace the cause of it.

The Coroner, addressing the Jury, said that whatever the defects were the lift would finally have gone down to and stopped at the basement and there was no danger in using the lift as such. If the lift did stick, people inside it could ring the alarm bell and a maintenance man would have wound it manually to the proper level.

The verdict was misadventure.

A considerable majority of accidents are, fortunately, of a minor nature, and most of them are not caused by defects in structures or equipment or by the failure of the employer to provide or maintain certain services, in fact, of the 355 reported accidents this year some 71% did not require action by this department following investigation of the circumstances.

Many accidents are found to be due to human error or carelessness. For instance, most falls on stairways were due to the persons slipping or tripping on staircases which were in sound condition and provided with satisfactory handrails. Accidents in this category formed 25.9% of the total, the largest single factor in the various groups of causation.

There are numerous reported accidents which also fall into a similar category, and, as far as the purposes of the Offices, Shops and Railway Premises Act are concerned, may perhaps be described as inconsequential to the main objects of the Act. Such accidents include slipping on floors; fingers being caught in doors; swing-doors being released carelessly by users; dropping articles and goods; cuts whilst cleaning knives and other sharp implements; pushing a hand through the glazing of a window or door; being tripped by another person; and being assaulted by customers (there were seven reports this year, six of them occurring in public houses to both male and female employees and one affecting a security man in a departmental store).

There are many more accidents which fall into the group referred to in the previous paragraph, but these form a cross section of the incidents for which there is no remedial action under this enactment, and which could not come within Section 22 affecting dangerous conditions and practices.

In connection with the smaller percentage of the more serious accidents some of the remedial measures may prove to be costly and may involve long-term planning.

In a wholesale warehouse where porters loading pallet boards with fruit and vegetables were obliged to walk on the pallets to facilitate their task, a man caught a foot between the wooden slats of a pallet causing him to lose his balance, fall on to an empty metal drum and injure his face. The employers were advised to arrange a programme of modification or replacement of the pallet boards whereby the pallets could be used safely and effectively as loading and storing aids.

A fitter's mate working in an office building was checking the fire-door leading to the external fire escape at the first floor level when the half-landing of the fire escape collapsed causing him to fall approximately fifteen feet. His injuries included fracture of four ribs and the right foot. This matter was referred to the Chief Building Surveyor for his attention.

There are a variety of accidents covering a wide area of activities and practices. Three accidents arising from the lighting of gas-fired cooking stoves were due to the employees not observing the normal precautions necessary to prevent a build-up of gas in the appliances before applying a light to the oven burners. In two instances public health inspectors had to ensure that employees were adequately instructed by a competent person.

A few accidents arose from the failure to place the safety guards across the hatchways in floors leading to cellar steps. In one instance a drayman was said to be delivering supplies to a public house when a woman employee stepped back into the opening in the floor because the guard rail had not been put into its correct position. As she fell the assistant's foot became trapped in the lifted hatchway cover thus fracturing the ankle.

In order to effectively reduce the risks to which employees may be exposed it is essential that all accidents in shops and offices are notified to the appropriate authority on Form O.S.R.2 obtainable from H.M. Stationery Office, or a local law stationer. It is the desire of the authorities to fully advise employers and staffs, and it should be the concern of employers to avail themselves of this advice.

Hoists and Lifts

Since the implementation of the Offices, Shops and Railway Premises (Hoists and Lifts) Regulations, 1968, 158 reports have been received from engineers and surveyors detailing 583 matters requiring the attention of the owners of passenger, service and goods lifts and goods hoists.

Public health inspectors have made such visits as were considered necessary to the buildings in which the lifts and hoists were situated and suitable letters were sent to the responsible persons advising them of the receipt of the examiners' reports and requesting their notification of the action taken by them to deal with the recommended remedial measures. In certain instances inspectors interviewed representatives of the owners in order to expedite some of the requirements.

Only in three instances have difficulties occurred in regard to the means for meeting the requirements of the regulations and in two of these a member of H.M. Factory Inspectorate kindly assisted during consultations at the premises concerned.

In addition to dealing with any matters arising from engineers' reports inspectors carry out general observations of lifts in any buildings they visit during the course of other duties. In this way they are able to deal with any visible matters which appear to affect the safe working of the lifts. If a more detailed inspection by a competent person appeared to be necessary for the purposes of the regulations, suitable enquiries and arrangements would then be made with the persons concerned.

Adulteration of Food and Drugs

During the year 3,748 samples of food and drugs were procured and analysed and of this number 201 or 5.36% were found not to be genuine or otherwise irregular.

The samples taken comprise 374 formal and 3,374 informal. An informal sample is one procured without the statutory intimation to the vendor that it is to be analysed. Valuable information as to irregularities may be obtained in this way. Milk, being such a widespread and staple source of food supply, must figure prominently in any sampling programme and 2,404 samples of milk were procured for analysis.

Statutory action was taken in respect of milk and sausages. Fines totalling £195 0s. 0d. and £28 5s. 0d. costs were imposed.

Samples of ice cream, ice lollies and frozen confections submitted for chemical analysis or bacteriological examination numbered 169. A total of 163 ice cream samples were examined bacteriologically and 96 were found to be in Grade I; 23 in Grade II; 14 in Grade III and 30 in Grade IV. Samples in Grades III and IV are considered unsatisfactory and it is the practice to take further samples to see if the results are consistently poor. Appropriate action was taken in respect of unsatisfactory samples and advice given to manufacturers concerning the sterilising of the processing plant.

In addition to the bacteriological examination of milk and ice cream, 87 samples of other foods were examined for their suitability for human consumption, including examination for food poisoning organisms. The foods selected were those to be eaten without further cooking and included meat products, sandwiches, cakes and shellfish. The results of the examinations generally were satisfactory.

There were 20 special items of foodstuffs submitted by members of the public (and similar items where the originals were not available) which were suspected of having caused food poisoning. These were all examined for food poisoning organisms and in each case the results were negative.

Examination of Milk

Regular samples of milk were taken from processing plants and milk producers within the city, and the standard of cleanliness and efficiency of pasteurisation continues to be satisfactory. Towards the end of the year a new replacement pasteurising plant in one of the large dairies in the city was examined and tested for efficiency of pasteurisation. It was found to be satisfactory and is now in production.

The total number of milk samples submitted to the Public Health Laboratory for examination was 1,253, comprising 1,234 heat-treated milks and 19 raw milks. None of the 1,234 heat-treated milks failed the phosphatase test for efficiency of pasteurisation. However, 10 samples failed the methylene blue test for bacterial quality and were traced to inadequate sterilisation of equipment and the dairymen were cautioned regarding the correct use of sterilents.

No methylene blue test failures were reported from the 19 untreated milk samples taken and the result of the guinea pig inoculation of the milk tested for the presence of tubercle bacilli proved all samples were negative.

A small percentage of the milk supply in the city consisted of untreated milk. Of the 19 samples of untreated milk all were specially tested for the presence of brucella abortus. These samples were procured from milk produced within the city and from bottled milk produced in outside areas. All samples were negative.

Of the 187 samples of sterilised milk examined none failed the turbidity test. A total of 66 samples of ultra heat-treated milk, all of which were processed outside the city, were examined and all satisfied the colony count test.

The milk supplied to schools, hospitals and day nurseries is sampled regularly, both bacteriologically and chemically and all samples proved satisfactory.

During the year 261 visits were made to milk processing plants for the purpose of sampling when the installations were in operation. Special attention was paid to the temperature and the functioning of recording and indicating instruments.

There are five processing dairies in the city consisting of four multiple high temperature short time pasteurising plants, one of the holder or batch type, and two sterilising plants.

Liquid Egg

During the year a total of 21 samples of liquid egg white and liquid egg were examined using the statutory Alpha Amylase test and for Salmonella, all samples proved satisfactory.

The Liverpool Corporation Act, 1921, empowers the local authority to grant licences to all persons keeping dairy cows, store cattle and pigs, subject to the premises being of the required standard. Licences were issued in respect of 22 premises.

During the year 52 samples of animal feedingstuffs and fertilisers were obtained from city mills for analysis. There were no major infringements of the principal Act.

Supervision of Food Supply

Close supervision of the food supply in the city has been carried out throughout the year. Public health inspectors have made daily visits to the Wholesale Fish Market and to the Wholesale Fruit, Vegetable and Flower Market.

Poultry and game on sale at the wholesale market is inspected prior to sale to the retail trade, 1,469 lbs being rejected and destroyed as a result of these inspections. The main cause for condemnation was decomposition.

The Wholesale Fish Market is visited daily and all fish on sale is inspected. These inspections resulted in the rejection of 26,067 lbs of fish, including shellfish.

The daily inspection of fruit and vegetables at the wholesale market and warehouses throughout the city resulted in the rejection of 400,180 lbs of fruit and 209,000 lbs of vegetables as being unfit for human consumption.

A variety of food premises, wholesale warehouses, cash and carry premises, have been visited for the purpose of the inspection of canned goods and grocery sundries and retail shop stocks are inspected on routine visits. These inspections resulted in the rejection of 65,057 lbs of foodstuffs as being unfit for human consumption. In addition, 41,753 lbs of frozen foods were rejected due to the breakdown of refrigerator elements. The various types of canned goods, etc., rejected were:

Canned meats	29,690 lbs
Canned fruit and vegetables	29,136 lbs
Canned fish, milk and soups	7,577 lbs
Dry groceries	11,084 lbs

Since the revocation of the Merchandise Marks Act, 1926, the Orders in Council which have been retained, require an indication of origin on certain imported foods. Visits have been made to provision merchants, butchers and greengrocers and any infringements observed have been rectified during the visit.

During the year a total of 515 consumer complaints were received from members of the public concerning items of food purchased within the city which were regarded by the complainants as being unfit, or as containing extraneous foreign matter. All consumer complaints were thoroughly investigated and advice given to the responsible vendor or manufacturer to prevent similar occurrences and the complainants were generally reimbursed for any loss incurred.

Containers

A general increase in the number of containers and different types of foodstuffs continues under the Imported Food Regulations, 1968. These containers which were previously inspected at the port of entry are allowed through to their destination and are now inspected in the city by public health inspectors and 71 samples of various types of foodstuffs were submitted for bacteriological examination.

During 1969 a total of 878 containers arrived in the city and this has increased to 2,167 during 1970. All containers are examined and the food inspected on arrival. A total of 90,266 lbs of frozen beef was rejected and a total of 5,040 lbs of lambs' livers which had been held by the Ministry of Agriculture, Fisheries and Food in a cold store in the city since the last outbreak of Foot and Mouth Disease was condemned and in co-operation with the Ministry's officials was processed, under supervision, for non-edible purposes. In addition, 450 cartons totalling 9,010 lbs of prawns were rejected as not being fit for human consumption.

Poultry Processing Premises

The only poultry processing premises in the city are operated under the control of the Schecita Board for the ritual slaughter of poultry. A total of 50,000 birds was slaughtered during the year and New York dressed, i.e., plucked but not eviscerated, and then distributed to the Kosher butchers throughout the

Mersyside area. The premises are visited daily and the standard of the poultry and the premises has been maintained to a satisfactory level throughout the year.

LICENSED PREMISES AND CLUBS

During 1970, 14 applications were received by the Clerk to the Justices for the grant of new club registration certificates and a further 37 applications for the renewal of existing certificates under the provisions of the Licensing Act, 1964.

The departments concerned were notified of the applications by the Town Clerk. The public health inspectors are responsible for enforcing the provisions of the various enactments relating to food hygiene and public health matters, and the clubs were visited on receipt of the applications. Inspections were carried out and in many cases specifications were issued in respect of works necessary to bring the premises up to the required standard. These often involved the clubs in considerable expenditure.

On completion of the work to the satisfaction of the local authority, the Stipendiary Magistrate granted or renewed the Club Registration Certificate. A Club Registration Certificate is granted for a period of twelve months, but after the second application for renewal the Court may renew the certificate for a period of up to ten years.

At the end of the year the total number of registered clubs was 255 and a further 73 clubs were subject to on-licences under Section 55 of the Licensing Act, 1964.

The total number of off-licensed premises for the sale of beer, wines and spirits was 183 and there were 41 restaurants licensed for the sale of intoxicating liquor, 3 premises with residential licences and 6 premises with residential and restaurant licences. Notifications were received of all applications for new licences to be made to the Licensing Justices and all premises were visited prior to the day of the hearing to ensure that they complied with the various enactments involved.

Other Clubs

At the end of 1969 there were 2 entertainment clubs in the city. During the year 2 applications for the renewal of registration were received and each was visited to ensure compliance with the provisions of the Liverpool Corporation (General Powers) Act, 1966 relating to lighting, sanitation and ventilation.

Bingo Clubs are now controlled under the provisions of the Gaming Act, 1968 which became operative during the year. There were 21 bingo clubs in the city at the end of the year and all were visited prior to the applications for licences being heard by the Licensing Justices.

There were 6 gaming clubs in the city and visits were made to ensure that their condition was satisfactory in matters for which the public health inspector is responsible for enforcement.

Meat Inspection

There are now two private slaughterhouses in the city. The work of modernisation at the slaughterhouse at Stanley has been continued throughout the year, and considerable work of improvement has now been completed. Further work is in progress to modernise and improve the cattle slaughterhall.

Tuberculosis

Only three cows were sent in by the Ministry of Agriculture, Fisheries and Food for slaughter under the Tuberculosis eradication scheme.

Brucellosis

Forty-two cows were dealt with and the carcasses were passed as fit. The udders, uterus and genitalia were destroyed.

Cysticercus Bovis

Thirteen carcasses plus the offal were detained and kept for 21 days at a temperature below 20°F (−7°C) for a period of three weeks. The heads were destroyed.

Pigs

A total of 253 whole carcasses were destroyed, the causes of condemnation were Swine Erysipelas, Pleurisy, Peritonitis, Pyaemia and Acute Arthritis.

Sheep and Lambs

It was necessary to condemn 807 carcasses, mostly for Pleurisy, Peritonitis and Arthritis which appears to be becoming more prevalent.

Calves

The conditions in calves condemned were Enteritis, Immaturity and Umbilical Pyaemia. The number condemned, 120, is slightly lower than the previous year.

Cattle

The number of beef carcasses (whole) condemned during the year was 57 together with part carcasses totalling 1,486.

The weight of organs and livers condemned was 207 tons including 66 tons of distomatotic livers which were sent for pharmaceutical manufacture.

Animals Slaughtered

Details of the number of animals slaughtered during the year are as follows:

Cattle	Cows	Calves	Sheep and Lambs	Pigs	Total
31,071	13,100	533	142,294	98,684	285,682

CONDEMNED MEAT – Details are as follows:

	Part	Whole	Weight Tons	Cwts	Lbs.
Cattle	394	5	9	5	54
Sheep and Lambs	5,042	807	27	1	15
Pigs	2,663	253	37	0	74
Cows	1,092	52	20	12	76
Calves	6	120	2	4	38

Meat Market

Carcases and meat dealt with in the market excluding the meat and offal from the 285,682 animals slaughtered in the City were as follows:

Origin	Beef Hinds/ Fores	Carcases Mutton/ Lamb	Carcases of Pork	Carcases of Veal
Imported chilled or frozen	13,316	652,118	915	—
Slaughtered outside Stanley Abattoir	93,394	138,636	145,245	2,620

In addition to the above, 429,888 packages of meat, poultry and rabbits were handled.

Slaughtering Licences

A total of 73 licences were granted by the City Council, including six licences to ritual slaughterers.

Training Courses

The training courses for Meat Inspection and Food Hygiene and Public Health Inspection were well attended this year.

Specimens for Examination

Specimens were provided for the Royal Society of Health and the Public Health Inspectors Education Board.

Specimens for Teaching Purposes

Requests for supply of blood, hearts, eyes and cysts and any other specimens for hospital laboratories and the University, schools and training colleges were met.

Factories Inspection

Inspections have continued to be made to all forms of factory premises. Action was taken to remedy any unsatisfactory conditions, including the cleansing and general maintenance of food factories. In other factories the defects were mainly confined to the sanitary accommodation. A difficult problem still persists where certain factories situated in, or in close proximity to, residential areas operate during the night, as complaints concerning noise and/or odour from the activities within these factories were received during the year. It must be appreciated that it is well nigh impossible to carry out certain operations involving the use of machinery, without causing some noise, and it has been found that a level of noise which is readily accepted during the daytime is unacceptable during the night. In certain cases complaints have been investigated where the level of noise has been so low that it has not been possible to reduce the noise further, although the complainants have considered that even the low level of noise was an intrusion of their home. It is found that in investigating complaints concerning noise and odour, that managements, in general, are aware of their responsibilities and they have co-operated in reducing the problem whenever a remedy has been available.

Outworkers

The return of outworkers under the provisions of Section 133-134 of the Factories Act, 1961 was as follows:

Number of outworkers during the year	105
Number of returns received from other authorities	—
Number referred to Medical Officer of Health of Districts outside the city	13

There were 653 visits made to premises occupied by outworkers and the premises were found to be maintained in a satisfactory manner.

Rag Flock and Other Filling Materials Act, 1951

The number of premises licensed and registered is as follows:

1. Licensed to manufacture rag flock	1
2. Licensed to store and sell rag flock	5
3. Registered for use of filling materials	51

Agriculture (Safety, Health and Welfare) Provisions Act, 1956

Visits made throughout the year to pig farms, small holdings, market, and nursery gardens amount to a total of 97. No infringements were reported.

Dust Nuisance

It is very encouraging to see the facades of some of the older buildings in the central area of the city being cleaned and renovated, but the cleaning of the facing stonework of buildings by the dry sand blasting or grinding methods can cause a serious dust nuisance to the occupants of business premises, especially during periods of windy weather, and where these methods have been used, the contractors have been required to take special precautions to reduce the nuisance, by the enclosing of the working area with sheeting and the constant removal of sand from the footways. In addition wherever possible, wet spraying methods have been adopted to avoid causing a dust nuisance.

Industrial Nuisances – Offensive Trades

There has been a further decline in the number of offensive trades, the only remaining firm of “soap boilers” subject to renewal of consent, having discontinued to operate in Liverpool. The remaining establishments throughout the city are inspected on receipt of their applications and recommendations are made in an effort to minimise the risk of potential nuisances. Faults, unfortunately, do occur, either through mechanical failure or human error, and frequent observations are required, particularly throughout the warmer weather, to detect and to bring the nuisance under control.

Offensive Smells and Industrial Effluvia

The numerous redevelopments in the city have involved the department more than ever with engineers, architects, builders and proposed proprietors of restaurants, snack bars, licensed premises and clubs. The problems on ventilation and extraction of cooking and other offensive fumes, are discussed at the drawing board stage. A practice approved by officials and welcomed by the proprietors, because it obviates the possible cause of a nuisance and reduces the risk of expensive errors.

Noise

There is an increased awareness among the general public of the effects of noise, due mainly to the publicity this subject has received in the press and documentary programmes on television.

The number of complaints received by the department continues to increase, particularly from occupants of shops and offices in the city centre. During the course of the numerous protracted developments in the city, they are often subject to a variety of irritating noises from pneumatic drills, hammers, hoists, compressors, soil removing vehicles, pile driving and visiting contractors' heavy wagons.

Powers available in the Noise Abatement Act, 1960, Part III of the Public Health Act, 1936 and the Public Health (Recurring Nuisances) Act, 1969 do not always provide readily effective control of noises from such sources. Experience has proved that informal discussions with the offending contractors often produce more satisfactory results.

A number of complaints concerning noise from within office blocks were received, which upon investigation were found to be caused by printing equipment, a gumming machine, commercial sewing machines and ventilation fans.

Atmospheric Pollution

Smoke Control Orders

As no further smoke control orders have been submitted for confirmation by the Ministry, the position remains the same as last year with 25 confirmed orders of which 21 are operative. The remaining four orders become operative progressively between 1971 and 1974.

Industry and Shipping

Observations continue to be made on industrial premises also on shipping, and the results show that the amount of unnecessary smoke is still being reduced.

New Installations

With the continuing construction of new premises in the city as well as renewal of old, worn out plant, new chimney heights and revised levels have received attention in 67 cases. There were five instances where consultants had to increase the proposed heights before Committee approval could be given. In all cases co-operation on both sides achieved satisfactory levels. New installations resulted in 91 notifications to which 75 requested official approval of the proposal and in all cases this was given.

Measurement of Pollution

Five instruments continue to record the amount of smoke and sulphur in the atmosphere in various parts of the city. The results are forwarded to Warren Springs Laboratory in association with the National Survey of Pollution.

Research Investigation

An investigation was commenced at a particular location where arrangements were available to assess the extent to which motor vehicles contribute to the pollution of the atmosphere. It will be some time before any conclusion can be made on the results of the experiment. Additional atmospheric pollution measurements are being taken in connection with the Vauxhall Project, so that a comparison can be made with other areas where measurements are available.

Rodent Control

Duties of Local Authorities and Occupiers

It is the statutory responsibility of every local authority under the Prevention of Damage by Pests Act, 1949 to take steps to secure as far as is practicable that their district is kept free from rats and/or mice and to enforce the duties of owners and occupiers under its provisions. In Liverpool dwelling houses are disinfested free of charge and tenants are keen to report any evidence they may have seen or heard.

Practical assistance is also given to owners and occupiers of business premises and land, and this proves helpful because to rely solely on the enforcement of the provisions of the Act could lead to an increase in the rodent population. Where assistance is provided at places other than dwelling houses a charge is made for the services rendered.

The demolition of many buildings in the City Centre helped to cause the number of complaints received, but due to the continuous treatments of the sewers very few brown rat infestations were found in this area.

Systematic Survey

The rodent control staff examined 10,763 sites during the year in connection with routine survey and investigation of complaints and a further 72,356 visits were made entailing operational work and re-examination of buildings and lands during or following treatments. The Public Health Inspectors also made, in connection with other matters 134,853 inspections under the Act.

Rodent Infestation

During the year 3,256 sites were found to be infested. 1,681 by rats, 62 by rats and mice, and 1,513 by mice only and the majority were only slightly infested. Details are shown in the statistical appendix.

Development of agricultural land for new housing estates disturbed rats from their customary habitats causing them to infest buildings under construction.

Complaints relating to rats and/or mice to the total of 11,891, a decrease of 2,610 over the previous year were received and promptly investigated.

Of the 937 dwelling houses affected by rats, 879 infestations were solely confined to the external parts of the premises.

Rodent Disinfestation

During the year 2,833 buildings and lands were disinfested from rats and/or mice. The demand for assistance from occupiers of business premises remains appreciable and 1,645 requests were received.

Of the 2,833 infestations and reinfestations remedied during the year, 2,747 were treated by the department's operators and of these, 2,729 were cleared by the use of poisons and the remaining 18 were remedied by trapping only. 84 notified infestations were remedied by the occupiers or their contractors under the guidance and supervision of the rodent control inspectors.

It is estimated that at least 8,687 rats in buildings and on lands were destroyed during the year as a result of poisoning treatments. 1,608 dead rats were actually collected during operations and 134 were caught in traps.

The species of rats collected were 869 *rattus norvegicus* ("brown" or "common" rats) and 739 *rattus rattus* ("black" or "ship" rats).

Of the rodents collected 23 were sent to the Public Health laboratory for examination and the remainder were burnt.

Although there is no reliable formula available for calculating the kill in relation to the poisoning of mice there can be no doubt that the number destroyed by this method is quite considerable when taking into account the large amount of poison actually consumed by mice, namely 10,426 ounces.

Rat Destruction in Sewers

There are some 26,500 manholes providing access to the whole of the sewerage system in the City and a total of 37,410 poison baits were laid in manholes. There is no doubt that as the result of the continuous and systematic treatment of sewers, the breeding and migration of rats through sewers and drains has been greatly reduced but it is essential that treatments are continuously applied. A follow-up test after the poison treatment was applied to a proportion of the manholes previously treated, and activity was only recorded in 352 out of a total of 14,621 manholes re-tested, which is an indication of the effectiveness of the treatment. A further poison treatment was applied in the areas where the manholes were situated.

During the year it was considered necessary to refer to the Chief Engineer, 629 items of work which required attention in order that maximum benefit could be had from the work entailed in this branch of the work of the department. The items included the removal of rubbish from baiting points and clearing of choked or partially choked sewers.

Preventive Measures

During the year 338 drain tests were held in connection with infestations, which resulted in 109 premises being found to have defective drainage systems and the necessary action was taken to have the drains repaired. 94 notices were served under the provisions of the Prevention of Damage by Pests Act, 1949, relating to premises for non-structural work.

Once again it is pleasing to note that during the year it was not necessary to institute legal proceedings under the Prevention of Damage by Pests Act, 1949.

Pigeon Control

Feral pigeons do considerable damage to the fabric of buildings where they roost and they also foul the facade and approaches to premises. Some owners of business premises and occupiers of dwelling houses co-operated with the staff to reduce the feral pigeon population. The operational work carried out resulted in many pigeons being trapped and humanely destroyed and some feral pigeons were destroyed as a result of work carried out by private firms.

A total of 29,159 visits were made which resulted in 81,323 pigeons being humanely destroyed and 4,198 eggs were destroyed. The number of birds

caught by the department's staff was 80,738 and 585 with help from private firms. Since the inception of the sub-section in January, 1966 a total of 333,287 feral pigeons and 30,838 eggs have been destroyed.

The most serious infestations are found near the docks, mills and warehouses where grain is exposed during loading and unloading of vehicles, and constant action is required as large flocks of pigeons travel considerable distances to feed at these locations. There is still the difficulty to be overcome of misguided persons placing food on the highway to feed pigeons and this aspect of the problem is proving very difficult to resolve, as numerous pigeons are attracted to these locations but as they do not roost in the area, there is little that can be done to prevent a nuisance to residents in the locality.

Staff

During the second half of the year several members of the staff were redeployed to other Corporation departments due to a proposed Incentive Bonus Scheme being formulated by the Central Works Study Unit. This will have the effect of some of the staff being made mobile and it is anticipated that the scheme will become operative early in 1971.

Disinfection and Disinfestation

The duties of this section are to provide services for disinfection following infectious disease, disinfestation of verminous premises, persons or articles, and the transport for these and other services within the department.

Inspection of premises for verminous conditions

For rehousing purposes, 9,248 premises were inspected. As a result of complaints received, 7,419 premises were inspected and consequent upon these inspections, 4,931 dwellinghouses, together with 260 business premises were treated in the prescribed manner.

Disinfection

Premises — 175 dwellinghouses were disinfected in a suitable manner following the incidence of infectious disease. Following the occurrence of infectious disease at a hospital within the city, an operating theatre and several wards, together with their contents, were adequately disinfected.

Disinfection Station

During the year, the station at Smithdown Road depot dealt with the following articles:

11,164 verminous articles,

6,046 infectious articles,

7,606 articles for precautionary treatment,

508 tons of miscellaneous goods for precautionary treatment prior to export.

Throughout the year, 167 male persons were cleansed also.

Incontinent Laundry Service

Calls for the purpose of collecting from or delivering laundry to chronically sick persons totalled 35,126. Such calls are made where, because of domestic circumstances, alternative arrangements cannot be made.

Home Nursing Equipment

In cases where it is considered necessary to provide sick persons with home nursing aids, arrangements are made for the transportation of the equipment to or from the homes of sick persons and in this connection, 14,513 visits were made during the year.

City Mortuary

This service operates in close liaison with the office of the City Coroner, and in this connection 554 bodies were received at the mortuary and 521 post mortem examinations were attended by the staff.

Other Activities

- (a) Repair, maintenance and cleansing of home nursing equipment.
- (b) Collection and delivery of welfare foods.
- (c) Transport on behalf of other sections of the department.
- (d) Provision of transport for Port Health personnel.

SUMMARY OF PROSECUTIONS – 1970

Act	Section	No. of Informations or Complaints	Penalties			Costs		
			£	s.	d.	£	s.	d.
Public Health Act, 1936	94	8	—			15	0	0
Food and Drugs Act, 1955	Food not of quality demanded (milk)	26	230	0	0	31	15	0
Food and Drugs Act, 1955	Food not of quality demanded (fish cake)	1	25	0	0	5	5	0
Food and Drugs Act, 1955 and Food Hygiene (Markets, Stalls and Delivery Vehicles Regulations, 1966)		3	3	0	0	—		
Offices, Shops and Railway Premises Act, 1963	18 and 48	2	75	0	0	5	0	
Public Health Act, 1936	236	1	5	0	0	—		
		41	£338	0	0	£52	5	0

FACTORIES ACT, 1961

Part I of the Act

1. INSPECTIONS for purposes of provisions as to health (including inspections made by Public Health Inspectors)

Premises (1)	Number on Register (2)	Number of		
		Inspections (3)	Written notices (4)	Occupiers prosecuted (5)
(i) Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by local authorities	51	266	—	—
(ii) Factories not included in (i) in which Section 7 is enforced by the local authority	2,817	3,567	22	—
(iii) Other premises in which Section 7 is enforced by the local authority (excluding out-workers' premises)	261	60	—	—
Total	3,129	3,893	22	—

2. Cases in which defects were found

Particulars (1)	Number of cases in which defects were				
	Found (2)	Remedied (3)	Referred		Number of cases in which prosecutions were instituted (6)
			To H.M. Inspector (4)	By H.M. Inspector (5)	
Want of Cleanliness (S.1)	—	—	1	—	—
Overcrowding (S.2)	—	—	—	—	—
Unreasonable temperature (S.3)	—	—	—	—	—
Inadequate ventilation (S.4)	—	—	—	—	—
Ineffective drainage of floors (S.6)	—	—	—	—	—
Sanitary conveniences (S.7)					
(a) Insufficient	—	—	—	—	—
(b) Unsuitable or defective	32	32	—	22	—
(c) Not separate for sexes	—	—	—	—	—
Other offences against the Act (not including offences relating to Out-work)	—	—	1	—	—
Total	32	32	2	22	—

FACTORIES ACT

Part VIII of the Act – Outwork
 (Sections 133 and 134)

Nature of Work (1)	Section 133		Section 134			
	No. of out- workers in August list required by Section 133(1) (2)	No. of cases of default in sending lists to the (c) Council (3)	No. of prosecu- tions for failure to supply lists (4)	No. of instances of work in unwhole- some premises (5)	Notices served (6)	Prosecu- tions (7)
Wearing apparel-making, etc.	46	—	—	—	—	—
Umbrellas, etc.	1	—	—	—	—	—
Christmas stockings	58	—	—	—	—	—
Total	105	—	—	—	—	—

CLEARANCE AREAS NOT YET CONFIRMED BY THE MINISTER

at the 31st December 1970

Area	Houses	Families
Barry Street Clearance Area, 1967	650	684
Salop Street No. 1 Clearance Area 1967	137	143
Salop Street No. 2 Clearance Area 1967	54	55
Salop Street No. 3 Clearance Area 1967	4	4
Florence Street No. 1 Clearance Area 1967	10	12
Florence Street No. 2 Clearance Area 1967	3	3
Tetlow Street No. 3 Clearance Area, 1967	2	2
Walton Lane Clearance Area, 1967	14	16
Luton Grove Clearance Area, 1967	9	10
Tetlow Street No. 4 Clearance Area, 1967	4	4
Salop Street No. 4 Clearance Area, 1967	4	4
Cardigan Street Clearance Area, 1968	233	239
Combermere Street Clearance Area, 1968	7	7
Harrowby Street No. 1 Clearance Area, 1969	206	243
Harrowby Street No. 2 Clearance Area, 1969	158	192
Harrowby Street No. 3 Clearance Area, 1969	163	197
Harrowby Street No. 4 Clearance Area, 1969	3	3
Fearnside Street Clearance Area, 1969	638	635
Webster Road No. 1 Clearance Area, 1969	3	3
Webster Road No. 2 Clearance Area, 1969	2	2
Webster Road No. 3 Clearance Area, 1969	3	3
Fernie Street Clearance Area, 1970	38	41
Prophet Street No. 2 Clearance Area, 1970	18	17
Lombard Street Nos. 1 and 2 Clearance Areas, 1970	181	195
Norwood Grove Nos. 7, 8 and 9 Clearance Areas, 1970	34	89
Totals	2,578	2,803

COMPULSORY PURCHASE ORDERS CONFIRMED DURING 1970

Order	No. of Houses	No. of Families
Ash Street/Crosfield Road No. 1 Clearance Area	425	443
East Prescott Road Clearance Area	9	8
Menzies Street Area	762	803
Claypole Street Clearance Area	587	614
Jenkinson Street Clearance Area	23	26
Anson Street Clearance Area	5	7
Brasenose Road Clearance Area	335	370
St. Domingo Place Clearance Area	8	8
Cotter Street Clearance Area	35	47
Spekefield Cottages Clearance Area	59	65
Bridport Street Clearance Area	18	21
Upper Parliament Street No. 8 Clearance Area	9	21
Kinglake Street No. 2 Clearance Area	8	6
Mount Vernon Clearance Area	17	15
Agate Street Clearance Area	9	9
Cobden Street/Lytton Street Clearance Area	11	12
Walker Street Area	17	19
Blenheim Street Clearance Area	53	55
Freeland Street Clearance Area	331	375
Langham Street Area	214	268
Easby Road Area	453	488
Edensor Terrace Clearance Area	42	42
Totals	3,430	3,722

CLEARANCE ORDERS CONFIRMED DURING 1970

Order	No. of Houses	No. of Families
Shenstone Street	12	12
Railway Cottages	14	8
Totals	26	20

CLEAN AIR ACTS, 1956/68

Inspections, Observations, etc.,

Particulars of Inspections – 1970

Number of Inspections to Secure Smoke Control	4,616
Incidental Visits	236
Special Visits	356
Re-visits	1,080
Advisory Visits	84
Total Number of Appliances Examined	6,147

OBSERVATIONS

Industrial Chimneys

Routine Observations	3,653
Special Observations	130
Total Minutes of Excess Smoke Observed	25

SHIPPING

Routine Observations	807
Special Complaints	87
Total Minutes of Excess Smoke	1

CLEAN AIR ACT, 1956 – SECTION 3

Approval of New Furnaces, 1970

Notices of Intention to instal Received	91
Applications for Approval Received	75
Installations Approved	75

CLEAN AIR ACT, 1968 – SECTION 6

Heights of New Chimneys, 1970

Plans Examined to Check Chimney Heights	67
Plans Approved	62
Plans approved after Chimney Height Increased	5

ATMOSPHERIC POLLUTION MEASUREMENT – 1970
Smoke and Sulphur Dioxide Volumetric Filter
Measurements are in microgrammes per cubic metre

SMOKE		SULPHUR											
		Jan	Feb	Mar	Apl	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Croxteth Hall													
Average Value	108	78	61	39	28	14	8	22	17	55	62	84	112
Highest Value	457	314	101	366	69	38	28	78	65	185	167	281	453
Lowest Value	30	27	28	13	6	1	1	2	3	10	5	22	24
Green Lane													
Average Value	204	254	152	112	85	45	57	68	71	132	166	178	189
Highest Value	849	768	323	211	188	78	87	137	206	340	310	475	480
Lowest Value	2	123	47	42	54	9	34	17	27	47	73	7	7
Hatton Garden													
Average Value	150	109	92	69	63	44	39	69	45	78	91	123	314
Highest Value	395	346	248	200	107	79	66	130	126	191	254	229	578
Lowest Value	47	26	29	12	7	15	13	23	17	27	13	34	156
Lark Lane													
Average Value	–	72	83	50	36	22	17	28	22	38	38	40	–
Highest Value	–	164	159	104	84	58	35	77	65	110	72	172	–
Lowest Value	–	43	45	14	12	5	7	11	5	14	12	23	–
Woolton													
Average Value	102	73	73	52	49	35	26	39	36	59	75	79	199
Highest Value	256	276	124	106	98	67	50	105	97	120	130	235	448
Lowest Value	44	39	37	28	18	13	11	25	18	23	32	57	61

The station at Green Lane only operated for 17 days in February.
The station at Lark Lane did not operate in January and only operated for 8 days in February.

SUMMARY OF RODENT INFESTATIONS AND DISINFESTATIONS OF BUILDINGS AND LANDS DURING THE YEAR 1970

Description of Premises	Infestations			Reinfestations during the Year					Category		Total infesta- tions and reinfesta- tions	Total remedies
	Premises	Rats	Rats and Mice	Mice	Premises	Rats	Rats and Mice	Mice	Major	Minor		
Shops	700	335	11	354	73	32	—	41	—	773	773	614
Factories	157	86	6	65	35	19	—	16	—	192	192	128
Warehouses	63	43	5	15	9	7	—	2	—	72	72	48
Dwelling houses	1,457	893	4	560	168	115	—	53	—	1,625	1,625	1,421
Other buildings and lands	879	324	36	519	125	43	3	79	—	1,004	1,004	622
Food premises (included in above)	(349)	(95)	(12)	(242)	(11)	(3)	(—)	(8)	(—)	(360)	(360)	373
Total	3,256	1,681	62	1,513	410	216	3	191	—	3,666	3,666	2,833

**CARCASES AND OFFAL INSPECTED AND CONDEMNED
IN WHOLE OR IN PART – 1970**

	Cattle excluding Cows	Cows	Calves	Sheep and Lambs	Pigs
Number killed 285,679	31,071	13,100	533	142,291	98,684
Number inspected 285,679	31,071	13,100	533	142,291	98,684
All disease – except Tuberculosis and Cysticerci					
Whole carcasses condemned	5	52	120	807	253
Carcases of which some part or organ was condemned	384	1,080	6	5,042	2,148
Percentage of the number inspected affected with diseases other than Tuberculosis and Cysticerci	1.22	8.6	23.6	4.1	2.4
Tuberculosis only					
Whole carcass condemned	—	—	—	—	—
Carcases of which some part or organ was condemned	10	12	—	—	515
Percentage of the number inspected affected with Tuberculosis	0.03	0.09	—	—	0.51
Cysticerci					
Carcases of which part or organ was condemned	13	—	—	—	—
Carcases submitted to refrigeration	13	—	—	—	—
Generalised and wholly condemned	—	—	—	—	—

QUANTITY OF FOOD CONDEMNED FOR DISEASE OR FOUND UNFIT
FOR HUMAN CONSUMPTION – 1970

	Tons	Cwts	Qrs.	Lbs.
Beef, mutton, veal and pork	120	6	1	5
Offal	141	8	2	8
Fish	11	10	1	9
Poultry and Game	—	14	—	26
Fruit	181	2	3	16
Vegetables	206	4	3	11
Canned Goods	28	13	2	26
Sundries	4	18	3	24
Total	694	19	3	13

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